

**BIOMASS, COVERAGE AND WATER QUALITY
CHARACTERISTICS IN A CONSTRUCTED WETLAND (STA-
1W, CELL 5)**

FINAL REPORT

(C-13994)

Submitted to:
South Florida Water Management District
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1. Introduction

Net P accumulation in treatment wetlands is related to soil and sediment-water interface properties and processes, such as decomposition of plant detritus and microbial scavenging/release of P. Burial of P in sediments is the ultimate P sink in wetlands, and this appears related to the nutrient status of the wetland. Soil P accumulation rates in the northern, nutrient-enriched regions of the Everglades region (in Water Conservation Area-2A) were found to be as high as 1.2 g P/m²-year, while rates in the southern, nutrient-poor regions were below 0.3 g P/m²-year (Walker 1995).

While nutrient-enriched wetlands generally exhibit high rates of plant productivity and detritus (and P) deposition, much of this deposited P can be released back into the water column under certain environmental conditions (e.g., drought, anaerobic conditions, low pH). The chemical characteristics of the deposited P, as well as the environmental conditions of the sediments and sediment-water interface therefore are master factors in controlling P burial rates. In southern, periphyton-rich regions of WCA-2A, for example, high levels of calcium carbonate are found in the sediments, which is thought to contribute to the stability of sediment P to dry out (Koch and Reddy 1992). In Everglades periphyton communities, the high water column calcium concentrations coupled with high pH levels are also thought to contribute to the effective removal of P from the water column as a calcium carbonate coprecipitate.

Coprecipitation of phosphates with calcium compounds under alkaline conditions is well documented in the scientific literature. Otsuki and Wetzel (1972) demonstrated 70% removal of phosphate ion in marl waters that contained a calcium content of approximately 70 mg/L. These investigators reported that P removal was only achieved once the water column pH was elevated above 9. They also reported that the reaction time for phosphate removal was only a matter of minutes once the pH was elevated. This was one of the first studies to directly link phosphate removal under these conditions with formation of particulate carbonates.

Three factors will determine the utility of SAV for maintaining high quality outflows in the back end of this wetland. The first is the speciation of P as it passes through the wetland. The second is the ability of the SAV's photosynthetic activity to raise the pH, and exceed the CaCO₃ saturation index. Coupled with this is the diel response of P removal: for example, does the nighttime decrease in pH result in a release of P from the SAV, associated periphyton or sediments? The third is the seasonal response of SAV communities to changes in light and temperature. While the evidence has not been conclusive, the SAV community in Cell 4 of the ENR project in south Florida seems to have exhibited slight seasonal effects in TP removal (minor reductions in winter months).

Phosphorus (P) retention by soils includes surface adsorption on minerals, precipitation, microbial immobilization, and plant uptake. In treatment wetlands, these processes may be combined into two distinct P retention pathways: sorption and burial. Phosphorus sorption in soils is defined as the removal of phosphate from the soil solution to the solid phase, and includes both adsorption and precipitation reactions. When plants and microbes die off, the P contained in cellular tissue may either recycle within the wetland, or may be buried with refractory organic compounds.

Accretion of organic matter has been reported as a major mechanistic sink for phosphorus in wetlands. Wetland soils tend to accumulate organic matter due to the production of detrital material from biota and the suppressed rates of decomposition. Soil accretion rates for “low nutrient” constructed wetlands are on the order of millimeters per year, whereas annual accretion rates in more productive wetlands have been reported as high as several centimeters. The genesis of this new soil is a relatively slow process, which may affect the P sorption characteristics of the wetland. With time, productive wetland systems will accumulate organic matter (which ultimately forms peat) that has different physical and biological characteristics than the underlying soil. Eventually, this new material settles and compacts to form new soil with perhaps different P sorption characteristics than the original soil. As the wetland ages, steady accumulation of organic matter can potentially decrease the efficiency of wetland to assimilate additional P and alter the hydraulic flow paths, as organic accretion is seldom uniform throughout space. These conditions can result in elevated effluent P concentrations. Management of the newly accreted material potentially can improve the overall P retention capacity of a wetland.

The Stormwater Treatment Area 1 West (STA-1W) is a large constructed wetland (2700 ha) located in South Florida, USA (Figure 1) designed to remove nutrients from the agricultural runoff from the Everglades Agricultural Area (White *et al.*, 2004). This wetland is part of a larger program to reduce the input of nutrients to the Everglades ecosystem. Cell 5 of STA-1W is an 800 ha constructed wetland primarily containing submerged aquatic vegetation (SAV).

Using a series of field measurements and analytical determinations on water, soil and plants over time, we will document SAV species biomass and change and spatial water quality gradients over time in Cell 5 of STA-1W.

2. Methods and Materials.

2.0 Field Methods and Materials

2.0.1 Cell-wide sampling.

In order to be consistent with previous monitoring efforts, the sampling was done in 120 previously studied locations (DB Environmental Laboratory, personal communication). The location of the stations is showed in Figure 1 and the coordinates of the sampling stations are presented in Table 1. Triplicate water and vegetation samples were taken at 10% of the locations for QA/QC purposes, i.e. a total of 144 samples in the wetland. The sampling events were August 20-22, 2003; January 4-6, 2004; and April 12-16, 2004. Water and vegetation samples were stored in coolers with ice until analysis in the laboratory (Table 1).

WATER COLUMN SAMPLES. A peristaltic pump was used to collect the water samples. A float was used to keep the inlet of the sampling hose at 20 cm under the water surface at all times. Unfiltered water samples were taken to determine TP, TN, TKN, TSS, NVSS, color, and alkalinity (Table 1). On line filters (0.45 mm) were used to get filtered samples for NO_x, NH₄⁺, SRP and TDP. The samples for TP, TN, TKN, NO_x, NH₄⁺, and TDP were acidified immediately in the field with ultrapure concentrated H₂SO₄ to pH=2.

VEGETATION. All vegetation present within an area of 0.25 m² was collected. A PVC “cage” of 50 by 50 cm was used to delimit the sampling area. Vegetation coverage, in %, coverage was estimated visually. The vegetation was sorted by species, to determine the SAV species composition, and weighed to determine the wet biomass by species per unit area. Then the subsamples were placed in the drying room at 40 °C and dried to constant weight to determine dry weight biomass. The dried samples were grinded and analyzed for Total Nitrogen, Total Carbon and Total Phosphorus as described in the laboratory methods section.

FLOC. In the third cell-wide sampling (April 12-16, 2004), floc was collected in the 120 stations using a 4-in polycarbonate tube to collect cores and separating the floc and peat.

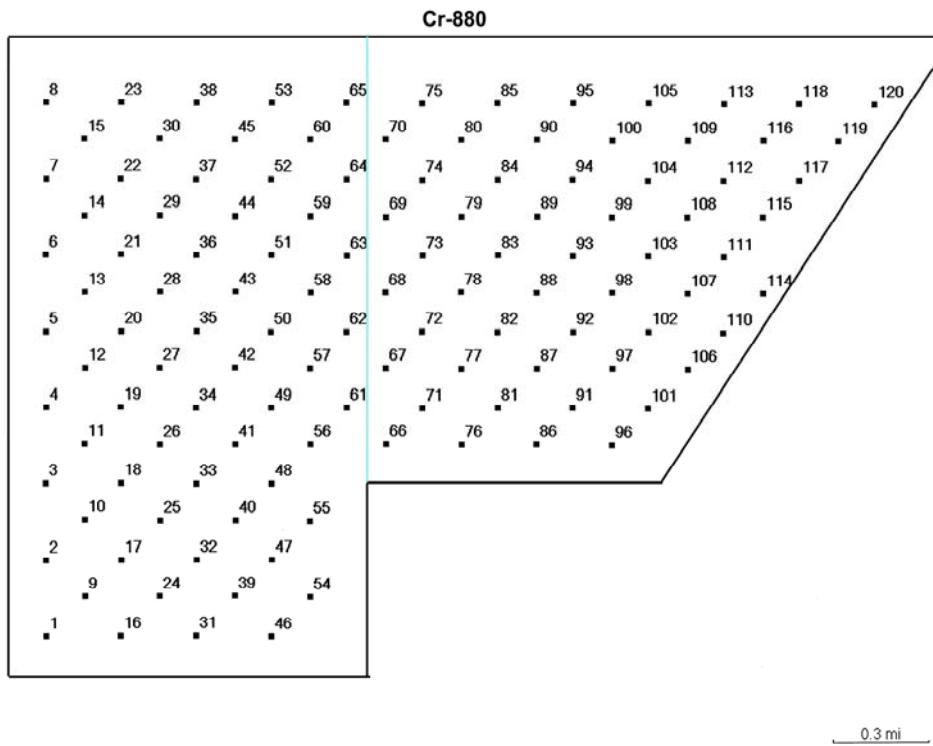


Figure 1. Location of the 120 stations sampled.

Table 1. Coordinates (UTM) of the sampled stations.

Station	Longitude	Latitude	Station	Longitude	Latitude	Station	Longitude	Latitude
1	-80.443	26.651	46	-80.431	26.651	91	-80.416	26.662
2	-80.443	26.655	47	-80.431	26.655	92	-80.416	26.665
3	-80.443	26.658	48	-80.431	26.658	93	-80.416	26.668
4	-80.443	26.662	49	-80.431	26.662	94	-80.416	26.672
5	-80.443	26.665	50	-80.431	26.665	95	-80.416	26.675
6	-80.443	26.669	51	-80.431	26.669	96	-80.414	26.660
7	-80.443	26.672	52	-80.431	26.672	97	-80.414	26.663
8	-80.443	26.675	53	-80.431	26.675	98	-80.414	26.667

9	-80.441	26.653	54	-80.429	26.653	99	-80.414	26.670
10	-80.441	26.657	55	-80.429	26.657	100	-80.414	26.674
11	-80.441	26.660	56	-80.429	26.660	101	-80.412	26.662
12	-80.441	26.663	57	-80.429	26.663	102	-80.412	26.665
13	-80.441	26.667	58	-80.429	26.667	103	-80.412	26.668
14	-80.441	26.670	59	-80.429	26.670	104	-80.412	26.672
15	-80.441	26.674	60	-80.429	26.674	105	-80.412	26.675
16	-80.439	26.651	61	-80.427	26.662	106	-80.410	26.663
17	-80.439	26.655	62	-80.427	26.665	107	-80.410	26.667
18	-80.439	26.658	63	-80.427	26.668	108	-80.410	26.670
19	-80.439	26.662	64	-80.427	26.672	109	-80.410	26.674
20	-80.439	26.665	65	-80.427	26.675	110	-80.408	26.665
21	-80.439	26.669	66	-80.425	26.660	111	-80.408	26.668
22	-80.439	26.672	67	-80.425	26.663	112	-80.408	26.672
23	-80.439	26.675	68	-80.425	26.667	113	-80.408	26.675
24	-80.437	26.653	69	-80.425	26.670	114	-80.406	26.667
25	-80.437	26.657	70	-80.425	26.674	115	-80.406	26.670
26	-80.437	26.660	71	-80.424	26.662	116	-80.406	26.674
27	-80.437	26.663	72	-80.424	26.665	117	-80.404	26.672
28	-80.437	26.667	73	-80.424	26.668	118	-80.404	26.675
29	-80.437	26.670	74	-80.424	26.672	119	-80.402	26.674
30	-80.437	26.674	75	-80.424	26.675	120	-80.401	26.675
31	-80.435	26.651	76	-80.422	26.660			
32	-80.435	26.655	77	-80.422	26.663			
33	-80.435	26.658	78	-80.422	26.667			
34	-80.435	26.662	79	-80.422	26.670			
35	-80.435	26.665	80	-80.422	26.674			
36	-80.435	26.669	81	-80.420	26.662			
37	-80.435	26.672	82	-80.420	26.665			
38	-80.435	26.675	83	-80.420	26.668			
39	-80.433	26.653	84	-80.420	26.672			
40	-80.433	26.657	85	-80.420	26.675			
41	-80.433	26.660	86	-80.418	26.660			
42	-80.433	26.663	87	-80.418	26.663			
43	-80.433	26.667	88	-80.418	26.667			
44	-80.433	26.670	89	-80.418	26.670			
45	-80.433	26.674	90	-80.418	26.674			

FIELD-MEASURED PARAMETERS. A number of field measures were taken in each sampling event to characterize each station (Table 1). Water depth was measured using a metered staff with a flat disk attached to the end. As the organic soil is soft, a sharp or pointed staff will sink into the soil giving incorrect water depths while the disk will “sit” on the soft soil without significant sinking into the soft soil. The secchi disk depth was measured to determine the effect of water color on the “extinction depth” of the secchi disk. Water temperature, pH, conductivity, and dissolved O₂ were all measured using field meters set to record at 20 cm under the water surface.

Table 2. Measurements to be made at 120 stations three times in Cell 5 to correspond to previously measured by DBEL.

Lab-measured parameters	Lab-measured parameters	Field-measured parameters
Total P	Dry weight biomass	Water depth
Total Dissolved P	Wet weight biomass	Secchi depth
SRP	TSS	SAV species composition
Particulate P	NVSS	SAV % coverage
Color	TC in biomass	Water Temperature
Alkalinity	TN in biomass	Water column pH
Total N	TP in biomass	Dissolved Oxygen
TKN	TC in flock (2 nd sampling)	Conductivity
NO ₂ ⁻ + NO ₃ ⁻	TN in flock (2 nd sampling)	
NH ₄ ⁺	TP in flock (2 nd sampling)	

2.0.2 Vegetation-specific sampling.

Because the distribution of SAV species in the wetland was very different than it was when the original work plan was developed, different sampling locations were chosen in agreement with the SFWMD. Twenty four samples were chosen, half in the area close to the influent and the other half close to the effluent (Figure 2). Triplicates samples were taken in 10% of the stations. The sampling was performed in three occasions on September 25-26, 2003; February 3-4, 2004; and May 4-5, 2004. Field parameters and water, vegetation and soil samples were taken, as described before for the cell-wide sampling events. The analyses performed on these samples are listed in Table 3. Soil cores were taken at each station. The floc or detritus was collected as well as the underlying 0-10 cm of peat soil.

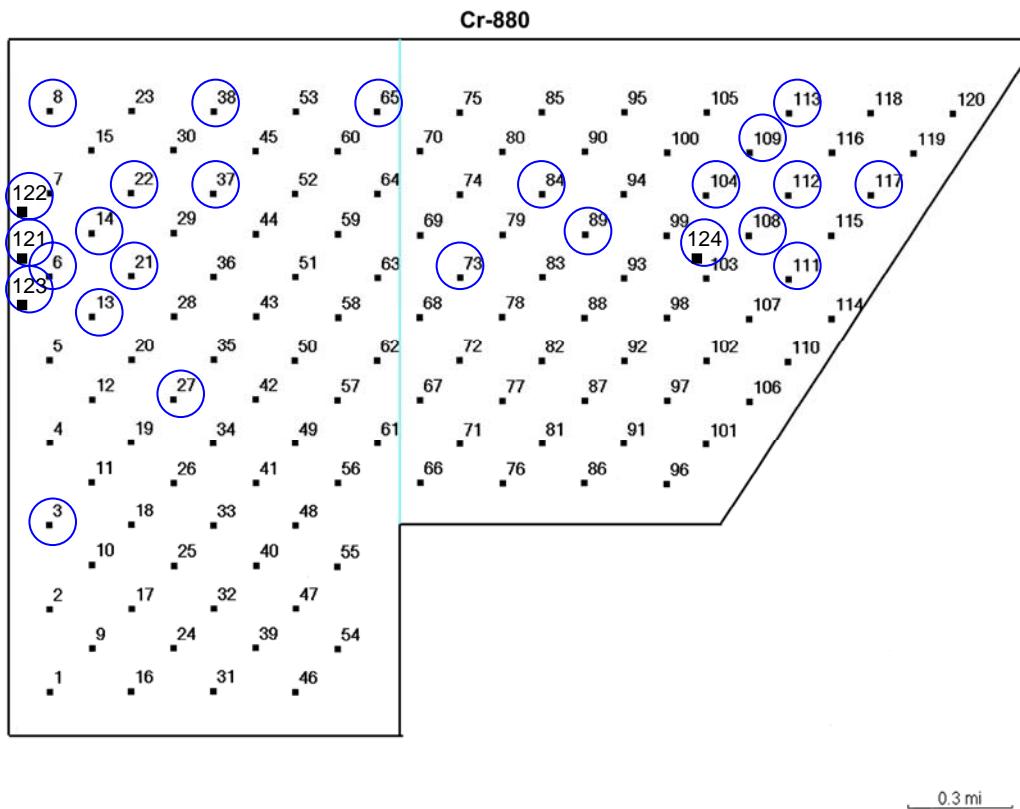


Figure 2. Location of the 24 stations sampled in the vegetation specific sampling.

Once in the laboratory, the two components of the core were analyzed separately for nutrients (Table 3). In addition, floc and peat samples were used for fractionation to determine forms of organic and inorganic P present (Ivanoff et al, 1998). Porewater was extracted floc and peat for a number of analyses (Table 3). Porewater was collected by spun down the sample on a centrifuge at 6000 rpm for 10 minutes @ 25 °C. Then, porewater was analyzed for pH, SRP, TP, TKN, NO_x, NH₄⁺, SO₄²⁻, alkalinity and total dissolved Ca (Table 3) as described in the laboratory methods section. Total N was calculated as the sum of unfiltered-TKN + NO_x.

Table 3. Measurement to be made at 24 stations three times a year in Cell 5 to correspond with major vegetation types including (Najas, Ceratophyllum, Chara, Hydrilla, Typha, Pista, Eichhornia, Periphyton) with 3 replicates at 10% of the stations.

Lab-Measured Parameters				Field-Measured Parameters
Water Column	Plants	Soil	Porewater	Water Column
SRP	Biomass (DW)	Organic P	SRP	Water Depth
TDP	Biomass (WW)	Inorganic P	TDP	Secchi Depth
TP	TP	TC	pH	Plant Species ID
TSS	TN	TN	Redox	Plant % Coverage
TVS	TC	Total Calcium	Total Dissolved	Water Temperature
Total Dissolved		Bulk Density	Ca	pH
Calcium			Alkalinity	Dissolved Oxygen
Alkalinity			TKN	Conductivity
TKN			NOx	
NOx			NH ₄ ⁺	
NH ₄ ⁺			SO ₄ ²⁻	
Color				

2.1 Laboratory Methods

Cell-Wide Monitoring

Water and vegetation samples were collected in August 2003, January 2004 and April 2004. DB Environmental Laboratories analyzed select parameters for surface water including, soluble reactive P, total soluble/dissolved P, total P, alkalinity and color while the remaining water quality, field measurements and plant analyses were completed by the Wetland Biogeochemistry Laboratory, University of Florida.

Water Samples

Total Suspended Solids and Non-Volatile Suspended Solids

Total suspended solids (TSS) and Non-volatile suspended solids (NVSS) were determined in surface water samples utilizing vacuum filtration and combustion in a muffle furnace in the Wetland Biogeochemistry Laboratory at University of Florida (APHA, 1998). Unfiltered water samples, preserved on ice, were analyzed for TSS within 48 hours of collection.

Pall 50mm type A/E glass fiber filters were prepared by placing the filters textured side up on a vacuum filtration apparatus and rinsed with 60 ml's of double distilled deionized water (DDI) to remove any possible combustible contaminants in the filters. After rinsing the filters, they were placed in labeled aluminum weigh dishes and placed in a 70°C oven for 1 hour to dry. After 1 hour the filters were cooled to room temperature in a dissector and an initial weight was recorded.

Water samples were then filtered through the prepared glass fiber filters using a vacuum filtration apparatus. An amount of water was filtered to yield between 0.2 and 0.8 g dry weight of material. The filters were placed in their pre-labeled aluminum weigh dish and dried in a 70°C until constant weight. The filters were brought to room temperature in a desiccator and the post filter weight was recorded. TSS was calculated by subtracting the post-filter weight by the pre-filter weight and then dividing by the amount of water filtered in liters (Standard Methods 18th Ed. 2540-C).

NVSS were determined by placing the TSS filters in a muffle furnace at 500 ± 50 °C for 1 hour. Filters were removed and placed in a desiccator to be brought to room temperature. The filters were weighed and NVSS was calculated by subtraction the post muffle furnace filter weight by the pre-filter weight (Standard Methods 18th Ed. 2540-C). NVSS represents the percentage of the TSS which was inorganic constituents.

Total Kjeldahl Nitrogen

Total Kjeldahl Nitrogen (TKN) was determined for water by Kjeldahl digestion and automated colorimetry in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Unfiltered water samples acidified with ultra concentrated sulfuric acid were preserved on ice and transferred to a refrigerator and stored at a constant temperature of 4 °C upon arrival to laboratory. Samples were digested within 30 days of collection. Ten mL samples were transferred into labeled 50 mL glass digestion tubes and approximately 0.3 g of Kjeldahl salt catalyst and 0.5 mL of concentrated sulfuric acid was added to each tube. The digestion tubes were placed in a digestion block at 160 °C for 2 hours to reduce the volume and then up to 360 °C for an additional 30 minutes. After cooling to approximately 100 °C, the samples were removed from the digestion block, 10 mL of DDI water was added to each tube and each was well mixed using a vortex shaker. The TKN sample digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 351.2, 1993).

Nitrate + Nitrite

Nitrate and nitrite-N were determined by automated colorimetry using an Alpkem RFA in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida (EPA Method 353.2, 1983). Field filtered ($0.45 \mu\text{m}$) water samples acidified with ultra concentrated sulfuric acid and preserved on ice were transferred to a refrigerator and stored at a constant temperature of 4 °C upon arrival to the laboratory. Samples were analyzed within 30 days after collection.

Ammonium

Ammonium-N was determined by automated colorimetry using a Technicon Autoanalyzer in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida (EPA Method 350.1, 1993). Field Filtered ($0.45\text{ }\mu\text{m}$) water samples acidified with ultra concentrated sulfuric acid and preserved on ice were transferred to a refrigerator and stored at a constant temperature of $4\text{ }^{\circ}\text{C}$ upon arrival to the laboratory. Samples were analyzed within 30 days after collection.

Total Phosphorus

Total phosphorus (TP) was determined by the automated ascorbic acid reduction method by DB Environmental Laboratories (Standard Methods 18th ed, 4500-PF). Unfiltered water samples were acidified with ultra concentrated sulfuric acid and preserved on ice until transferred to a refrigerator held at $4\text{ }^{\circ}\text{C}$ by DB staff.

Total Soluble Phosphorus/ Total Dissolved P

Total soluble phosphorus (TSP) was determined by the automated ascorbic acid reduction method (Standard Methods 18th ed, 4500-PF) by DB Environmental Laboratories. Field filtered ($0.45\text{ }\mu\text{m}$) water samples were acidified with ultra concentrated sulfuric acid and preserved on ice, transferred to a refrigerator held at $4\text{ }^{\circ}\text{C}$ by DB staff.

Soluble Reactive Phosphorus

Soluble Reactive Phosphorus (SRP) was determined by the manual colorimetric/1 reagent method (EPA Method 365.2, 1993) by DB Environmental Laboratories (DBE SOP OPO4). Field filtered ($0.45\text{ }\mu\text{m}$) water samples preserved on ice were transferred to a freezer by DB staff.

Color

Color was determined by the colorimetric-platinum-cobalt method (EPA Method 110.2) by DB Environmental Laboratories. Unfiltered samples preserved on ice were transferred to a $4\text{ }^{\circ}\text{C}$ refrigerator by DB staff.

Alkalinity

Alkalinity was determined by the titrimetric method (EPA Method 310.1) by DB Environmental Laboratories. Unfiltered samples preserved on ice were transferred to a refrigerator held at $4\text{ }^{\circ}\text{C}$ by DB staff.

Vegetation Samples

Vegetation samples were collected using randomly placed, 50 cm x 50 cm quadrat. All aboveground vegetation was collected, weighed in the field and preserved in plastic bags on ice until they could be transferred to a refrigerator with a constant temperature of $4\text{ }^{\circ}\text{C}$. Each sample was then separated by plant species and weighed. Each plant species was placed in a separate paper bag and dried at $90\text{ }^{\circ}\text{C}$ until constant weight and the dry weights were recorded. The dried

plants were ground using an electric plant grinder and put through a size 60 screen mesh and placed in labeled 25 mL scintillation vials for laboratory analysis for nutrient content.

Total Phosphorus

Total phosphorus (TP) was determined by utilizing the ignition method (Anderson, 1976) in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Between 0.2 and 0.5 g ground plant samples were into preweighed 50 mL glass beakers. The samples were placed in a muffle furnace at 500 ± 50 °C for 4 hours then allowed to cool overnight. After cooling to approximately 150°C in the muffle furnace, the beakers containing ash were transferred to desiccators to further cool to room temperature. The samples were weighed to determine the % loss on ignition. The ash was slightly moistened with DDI water and 20 mL of 6N HCl was added. The samples were then placed on a hot plate at 100-120 °C until dry. The hot plate was elevated to the HI setting for 30 minutes to complete the digestion procedure. The samples were removed from the hot plate and allowed to cool to room temperature.

After cooling, 2.25 mL of 6N HCl was added to each beaker and samples were returned to the hot plate brought to a boil and immediately removed from the hotplate. Ash samples were transferred from the beaker through Whatman glass fiber filters into 50 mL volumetric flasks with DDI water. The filters were rinsed three times and the volumetric flasks were brought to final volume with DDI water. The volumetric flasks were then covered tightly by parafilm and inverted ten times to ensure the TP sample was well mixed and transferred from the volumetric flasks to 25 mL scintillation vials. The TP samples were analyzed utilizing a Technicon Autoanalyzer within 30 days of digestion (EPA Method 365.1, 1993).

Percent ash content was calculated by dividing the weight of the sample after ashing by the weight of the sample before ashing then multiplying by 100. Total P was calculated by multiplying the concentration obtained from the Technicon Autoanalyzer by the volume of the volumetric flask then dividing by the initial weight of the vegetation sample before ashing.

Total Nitrogen and Total Carbon

Total nitrogen (TN) and Total Carbon (TC) were determined by combustion in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Vegetation samples were placed into pre-weighed tin boats and weighed on a microbalance. The samples were then analyzed on a Thermo FlashEA 1112 Series machine (Lakewood, NF) for total C and total N.

SAV and Other Select Vegetation Colony Monitoring

Submerged aquatic vegetation (SAV) and other select vegetation colony monitoring occurred in September 2003, February 2004 and May 2004 which included collection of surface water, porewater, vegetation and soil samples. DB Environmental Laboratories analyzed select parameters for surface water including, soluble reactive P, total soluble/dissolved P, total P, alkalinity and color while the remaining water quality, field measurements and plant and soil analyses were completed by the Wetland Biogeochemistry Laboratory, University of Florida.

Water Samples

Total Suspended Solids and Non-Volatile Suspended Solids

Total suspended solids (TSS) and Non-volatile suspended solids (NVSS) were determined in surface water samples utilizing vacuum filtration and combustion in a muffle furnace in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Unfiltered water samples, preserved on ice, were analyzed for TSS within 48 hours of collection. Pall 50mm type A/E glass fiber filters were prepared by placing the filters textured side up on a vacuum filtration apparatus and rinsed with 60 ml's of double distilled deionized water (DDI) to remove any possible combustible contaminants in the filters. After rinsing the filters, they were placed in labeled aluminum weigh dishes and placed in a 70°C oven for 1 hour to dry. After 1 hour the filters were cooled to room temperature in a dissector and an initial weight was recorded.

Water samples were then filtered through the prepared glass fiber filters using a vacuum filtration apparatus. An amount of water was filtered to yield between 0.2 and 0.8 g dry weight of material. The filters were placed in their pre-labeled aluminum weigh dish and dried in a 70°C until constant weight. The filters were brought to room temperature in a desiccator and the post filter weight was recorded. TSS was calculated by subtracting the post-filter weight by the pre-filter weight and then dividing by the amount of water filtered in liters (Standard Methods 18th Ed. 2540-C).

NVSS were determined by placing the TSS filters in a muffle furnace at 500 ± 50 °C for 1 hour. Filters were removed and placed in a desiccator to be brought to room temperature. The filters were weighed and NVSS was calculated by subtraction the post muffle furnace filter weight by the pre-filter weight (Standard Methods 18th Ed. 2540-C). NVSS represents the percentage of the TSS which was inorganic constituents.

Total Kjeldahl Nitrogen (TKN) was determined for water by Kjeldahl digestion and automated colorimetry in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Unfiltered water samples acidified with ultra concentrated sulfuric acid were preserved on ice and transferred to a refrigerator and stored at a constant temperature of 4 °C upon arrival to laboratory. Samples were digested within 30 days of collection. Ten mL samples were transferred into labeled 50 mL glass digestion tubes and approximately 0.3 g of Kjeldahl salt catalyst and 0.5 mL of concentrated sulfuric acid was added to each tube. The digestion tubes were placed in a digestion block at 160 °C for 2 hours to reduce the volume and then up to 360 °C for an additional 30 minutes. After cooling to approximately 100 °C, the samples were removed from the digestion block, 10 mL of DDI water was added to each tube and each was well mixed using a vortex shaker. The TKN sample digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 351.2, 1993).

Nitrate + Nitrite

Nitrate and nitrite-N were determined by automated colorimetry using an Alpkem RFA in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida (EPA Method 353.2, 1983). Field filtered ($0.45 \mu\text{m}$) water samples acidified with ultra concentrated sulfuric acid and preserved on ice were transferred to a refrigerator and stored at a constant

temperature of 4 °C upon arrival to the laboratory. Samples were analyzed within 30 days after collection.

Ammonium

Ammonium-N was determined by automated colorimetry using a Technicon Autoanalyzer in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida (EPA Method 350.1, 1993). Field Filtered (0.45 µm) water samples acidified with ultra concentrated sulfuric acid and preserved on ice were transferred to a refrigerator and stored at a constant temperature of 4 °C upon arrival to the laboratory. Samples were analyzed within 30 days after collection.

Total Phosphorus

Total phosphorus (TP) was determined by the automated ascorbic acid reduction method by DB Environmental Laboratories (Standard Methods 18th ed, 4500-PF). Unfiltered water samples were acidified with ultra concentrated sulfuric acid and preserved on ice until transferred to a refrigerator held at 4°C by DB staff.

Total Soluble Phosphorus/Total Dissolved P

Total soluble phosphorus (TSP) was determined by the automated ascorbic acid reduction method (Standard Methods 18th ed, 4500-PF) by DB Environmental Laboratories. Field filtered (0.45 µm) water samples were acidified with ultra concentrated sulfuric acid and preserved on ice, transferred to a refrigerator held at 4°C by DB staff.

Soluble Reactive Phosphorus

Soluble Reactive Phosphorus (SRP) was determined by the manual colorimetric/1 reagent method (EPA Method 365.2, 1993) by DB Environmental Laboratories (DBE SOP OPO4). Field filtered (0.45 µm) water samples preserved on ice were transferred to a freezer by DB staff.

Color

Color was determined by the colorimetric-platinum-cobalt method (EPA Method 110.2) by DB Environmental Laboratories. Unfiltered samples preserved on ice were transferred to a 4°C refrigerator by DB staff.

Alkalinity

Alkalinity was determined by the titrimetric method (EPA Method 310.1) by DB Environmental Laboratories. Unfiltered samples preserved on ice were transferred to a refrigerator held at 4 °C by DB staff.

Total Dissolved Calcium

Total Dissolved Calcium (TDCa) was determined by Soil Testing Analytical Research Laboratory at UF (EPA Method 200.7) on an Inductively Coupled Argon Plasma Mass Spectrometer. Field filtered ($0.45\text{ }\mu\text{m}$) water samples acidified with concentrated nitric acid and preserved on ice were transferred to a refrigerator to be cooled and stored at a constant temperature of $4\text{ }^{\circ}\text{C}$ upon arrival to the laboratory. Samples were analyzed within 30 days after collection.

Soil Samples

Soil samples were collected using a 7 cm diameter 40 cm long acrylic plastic tubes and sectioned according to soil type in field. Soil was sectioned and classified as either flocculent (loosely consolidated surficial floc material) or muck (underlying compact peat material). The subsequent sections were placed in plastic zip-lock bags and preserved on ice until they could be transferred into plastic containers and stored in a refrigerator with a constant temperature of $4\text{ }^{\circ}\text{C}$.

Percent Moisture

Gravimetric moisture content was determined by placing samples in a forced air drying oven. The soil was weighed into an aluminum weigh dish and dried in an oven at $70\text{ }^{\circ}\text{C}$ until a constant weight and the dry weights were recorded.

Percent moisture was calculated by determining the ratio between the weight of dry soil and the weight of wet soil. This ratio is subtracted from 1 and multiplied by 100 to obtain the percent moisture of the soil. After obtaining percent moisture the soils were ground using a ball mill.

Bulk Density

Bulk density was determined in the Wetlands Biogeochemistry Laboratory at University of Florida, Gainesville, FL. Bulk Density was calculated by dividing the total dry weight of the soil sample taken in the field by the volume of the corer.

Inorganic Phosphorus Fractionation

Inorganic phosphorus fractionation (Figure 3) was determined by sequential extraction in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, FL (Hieltjes et. al., 1980 and Reddy et. al., 1998). The soil was prepared by weighing out the wet weight equivalent of 0.5 g of dry soil into pre-weighed and labeled 50 ml polypropylene centrifuge tubes.

The KCl Pi (labile P) content of the soil was determined adding 25 mL of 1.0 M KCl to each sample. The samples were then placed on a mechanical shaker at low speed for 2 hours. After 2 hours the samples were centrifuged at 6000 rpm for 10 minutes. After centrifuging the 1.0 M KCl filtrates were decanted from each centrifuge tube and filtered ($0.45\mu\text{m}$) into a pre-labeled 25 mL scintillation vial using a vacuum filtration apparatus. The weight of the centrifuge tube, sample and KCl residue were recorded after filtration. The filtrates were stored at $4\text{ }^{\circ}\text{C}$ and analyzed for SRP using a Shimadzu UV-160 Spectrophotometer within 30 days after collection

(EPA Method 365.1, 1993) (WBL SOP SRP_UV_160). The soil was then used in the following sequential extractions:

The NaOH Pi (Fe/Al bound Pi) and the NaOH TP content of the soil was determined by adding 25 mL of 0.1 M NaOH to each sample. The samples were placed on a mechanical shaker at low speed for 17 hours. The samples were centrifuged at 6000 rpm for 10 minutes and filtered ($0.45\mu\text{m}$) into a pre-labeled 25 mL scintillation vial using a vacuum filtration apparatus. The weight of the centrifuge tube, sample and NaOH residue were recorded after filtration. The filtrates were stored at 4 °C and analyzed for extractable Pi and digested for TP within 30 days of collection.

To analyze for NaOH Pi (Fe/Al bound Pi) extractable Pi, 7 mL of each filtrates were pipetted into pre-labeled polypropylene centrifuge tubes and acidified with 7 drops of ultra concentrated sulfuric acid. The acidified filtrates were centrifuged at 6000 rpm for 5 minutes. The supernatants produced were then analyzed for SRP using a Technicon Autoanalyzer the day they were extracted (EPA Method 365.1, 1994) (WBL SOP SRP_AAII).

To analyze for NaOH TP, 5 mL of each filtrate was pipetted into a pre-labeled 50 mL glass digestion tubes and digested using 1 mL of 11 N sulfuric acid and 0.3 g of potassium persulfate. The samples were placed in a digestion block at 125 °C for 3 hours and 380 °C for 4 hours. After cooling the block to approximately 100 °C the digestion tubes were then removed from the digestion block and 10 mL of DDI was added to each tube. After the addition of DDI, each tube was mixed using a vortex shaker. The TP sample digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 365.1, 1993)(WBL SOP Extracts digestion).

The Humic and Fulvic acid Po content of the soil was calculated by subtracting the NaOH Pi (Fe/Al bound Pi) from the NaOH TP values.

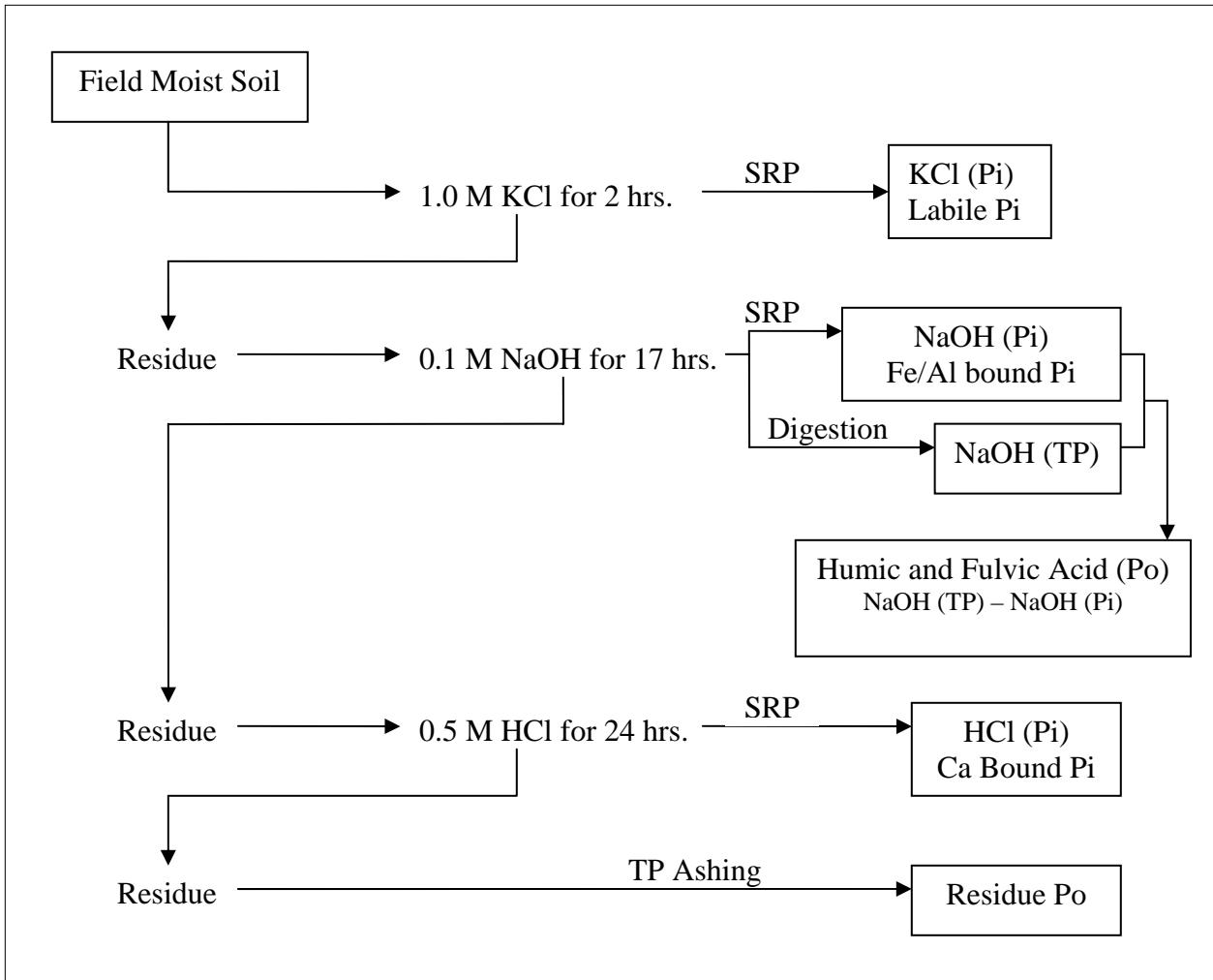


Figure 3: The inorganic phosphorus fractionation sequential extraction scheme used to determine the various P fraction.

The HCl Pi (Ca bound Pi) content of the soil was determined by adding 25 mL of 0.5 M HCl to each sample. The samples were then placed on a mechanical shaker at low speed for 24 hours. After 24 hours the samples were centrifuged at 6000 rpm for 10 minutes. After centrifuging, the 0.1 M HCl filtrates were decanted from each centrifuge tube and filtered ($0.45\mu\text{m}$) into a pre-labeled 25 mL scintillation vial using a vacuum filtration apparatus. The weight of the centrifuge tube, sample and HCl residue were recorded after filtration. The filtrates were stored at 4 °C and analyzed for SRP within 30 days of collection (EPA Method 365.1, 1993) (WBL SOP SRP_AAII).

The residue P content of the soil was determined utilizing the ignition method (Anderson, 1976). Samples were transferred from the centrifuge tube into a weighed and pre-labeled beakers using DDI. The samples were dried in a 70 °C oven until constant weight and the dry weights were recorded. The samples were placed in a muffle furnace at 500 ± 50 °C for 4 hours

then allowed to cool overnight. After cooling in the muffle furnace, the beakers containing ash were transferred to desiccators to cool to room temperature. The ash was slightly moistened using DDI water and 20 mL of 6N HCl was added. The samples were then placed on a hot plate at 100-120 °C until dry. Once the sample in the beaker was dry, the hot plate was elevated to the HI setting for 30 minutes to complete the digestion procedure. The samples were removed from the hot plate and allowed to cool to room temperature.

After cooling, 2.25 mL of 6N HCl was added to each beaker and samples were returned to the hot plate brought to a boil and removed from the hotplate. Ash samples were transferred from the beaker through Whatman glass fiber filters into 50 mL volumetric flasks. The filters were rinsed three times with DDI and the volumetric flasks were brought to volume with DDI water. The volumetric flasks were then covered tightly by parafilm and inverted ten times to ensure the TP sample was well mixed and transferred from the volumetric flasks to 25 mL scintillation vials. The TP samples were analyzed utilizing a Technicon Autoanalyzer within 30 days of digestion (EPA Method 365.1, 1993).

Organic Phosphorus Fractionation

Organic phosphorus fractionation (Figure 4) was determined by sequential extraction in the Wetlands Biogeochemistry Laboratory at University of Florida, Gainesville, FL (Invanoff et. al., 1998). The soil for both fumigated and non-fumigated samples was prepared by weighing out the wet weight equivalent of 0.5 g of dry soil into pre-weighed and labeled 50 ml polypropylene centrifuge tubes. The fumigated samples were prepared by adding 0.5 mL of chloroform to each sample and incubating the samples in a vacuum desiccator with a beaker containing 30 mL of chloroform for 24 hours.

The non-fumigated NaHCO₃ Pi (Labile Pi), non-fumigated NaHCO₃ TP and fumigated NaHCO₃ TP content of the soil was determined by adding 25 mL of 0.5 M NaHCO₃ (pH = 8.5) to each sample. The samples were then placed on a mechanical shaker at low speed for 16 hours. After 16 hours the samples were centrifuged at 6000 rpm for 10 minutes. After centrifuging, the 0.5 M NaHCO₃ filtrates were decanted from each centrifuge tube and filtered (0.45µm) into a pre-labeled 25 mL scintillation vial using a vacuum filtration apparatus. The weight of the centrifuge tube, sample and NaHCO₃ residue were recorded after filtration. The filtrates were stored at 4 °C and analyzed for labile Pi and digested for TP within 30 days of collection.

To analyze for non-fumigate NaHCO₃ Labile Pi, 7 mL of each filtrates were pipetted into pre-labeled polypropylene centrifuge tubes and acidified with 7 drops of ultra concentrated sulfuric acid. The acidified filtrates were centrifuged at 6000 rpm for 5 minutes. The resultant supernatants were analyzed for SRP using a Technicon Autoanalyzer within 4 hours of extraction (EPA Method 365.1, 1994) (WBL SOP SRP_AAI).

To analyze for non-fumigated and fumigated NaHCO₃ TP, 5 mL of each filtrate was pipetted into pre-labeled 50 mL glass digestion tubes and digested using 1 mL of 11 N sulfuric acid and 0.3 g of potassium persulfate. The samples were placed in a digestion block at 125°C for 3 hours and 380 °C for 4 hours. After cooling the block to approximately 100 °C the digestion tubes were then removed from the digestion block and 10 mL of DDI was added to each tube. After the addition of DDI, each tube was mixed using a vortex shaker. The TP

sample digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 365.1, 1993)(WBL SOP Extracts digestion).

Labile total organic P content of the soil was calculated by subtracting the non-fumigated NaHCO₃ extractable Pi values from the fumigated NaHCO₃ TP values.

Microbial Biomass P content of the soil was calculated by subtracting the non-fumigated NaHCO₃ TP values from the fumigated NaHCO₃ TP values.

The HCl Pi (Inorganic P) content of the soil was determined by adding 25 mL of 1.0 M HCl to each sample. The samples were then placed on a mechanical shaker at low speed for 3 hours. After 3 hours the samples were centrifuged at 6000 rpm for 10 minutes. After centrifuging, the 1.0 M HCl filtrates were decanted from each centrifuge tube and filtered (0.45μm) into a pre-labeled 25 mL scintillation vial using a vacuum filtration apparatus. The weight of the centrifuge tube, sample and HCl residue were recorded after filtration. The filtrates were stored at 4 °C and analyzed for SRP within 30 days of collection (EPA Method 365.1, 1993) (WBL SOP SRP_AAI).

The NaOH TP and acidified NaOH TP (Fulvic Acid) content of the soil was determined by adding 25 mL of 0.5 M NaOH to each sample. The samples were then placed on a mechanical shaker at low speed for 17 hours. After 17 hours the samples were centrifuged at 6000 rpm for 10 minutes. After centrifuging, the 0.5 M NaOH filtrates were decanted from each centrifuge tube and filtered (0.45μm) into a pre-labeled 25 mL scintillation vial using a vacuum filtration apparatus. The weight of the centrifuge tube, sample and NaOH residue were recorded after filtration. The filtrates were stored at 4 °C and digested for TP within 30 days of collection.

Acidified NaOH TP filtrates were prepared for digestion by pipetting 7 mL of filtrate into pre-labeled polypropylene centrifuge tubes and acidified with 7 drops of ultra concentrated sulfuric acid. The acidified filtrates were centrifuged at 6000 rpm for 5 minutes. The supernatants produced were used for TP digestion.

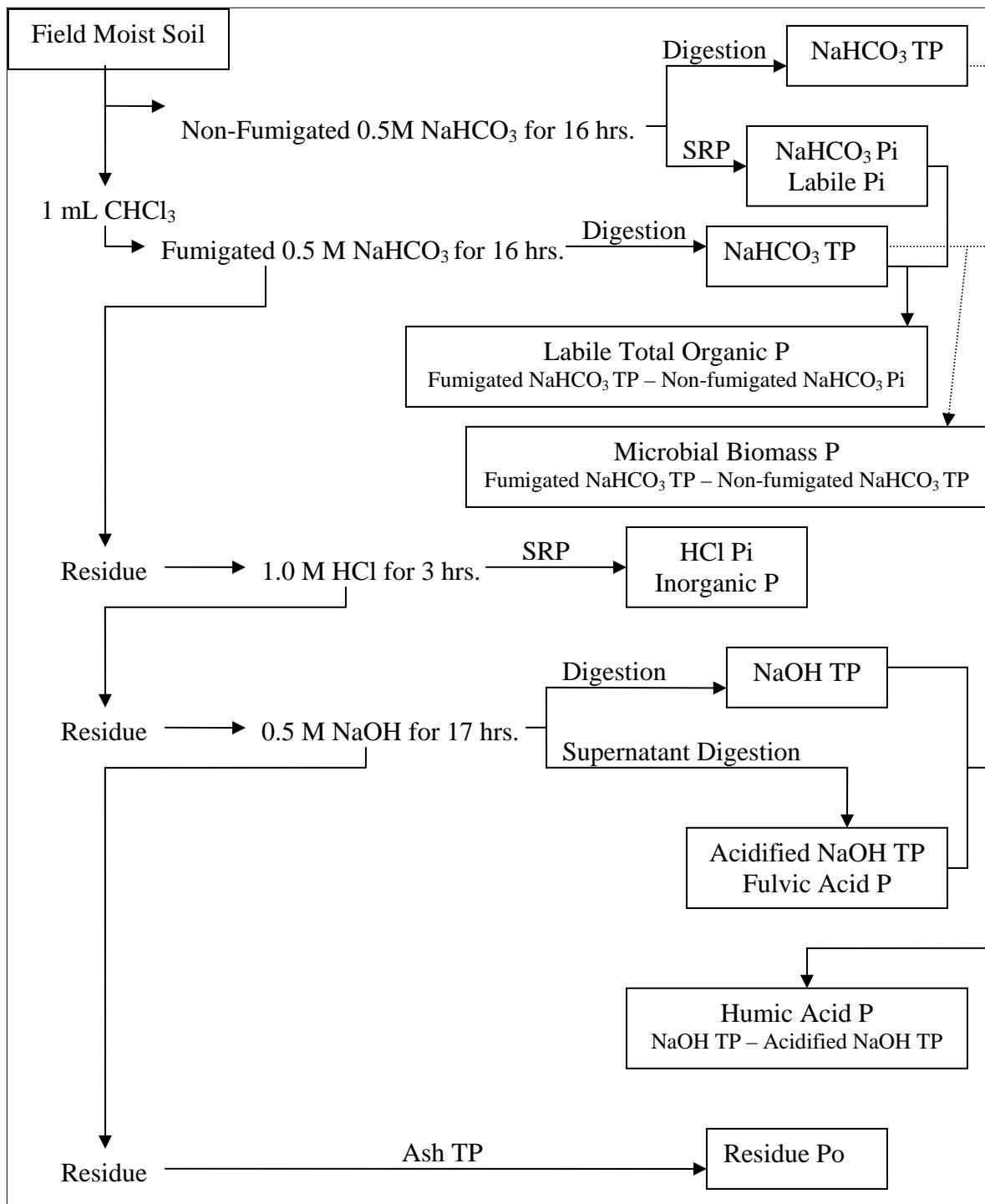


Figure 4. Organic phosphorus fractionation sequential extraction scheme used to determine various P fractions from soil collected from STA-1W, Cell 5.

To analyze for NaOH TP and acidified NaOH TP, 5 mL of each filtrate and supernatants were pipetted into a pre-labeled 50 mL glass digestion tubes and digested using 1 mL of 11 N sulfuric acid and 0.3 g of potassium persulfate. The samples were placed in a digestion block at 125°C for 3 hours and 380 °C for 4 hours. After cooling the block to approximately 100 °C the digestion tubes were then removed from the digestion block and 10 mL of DDI was added to each tube. After the addition of DDI, each tube was mixed using a vortex shaker. The TP sample digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 365.1, 1993)(WBL SOP Extracts digestion).

The residue P content of the soil was determined utilizing the ignition method (Anderson, 1976). Samples were transferred from the centrifuge tube into a weighed and pre-labeled beakers using DDI. The samples were dried in a 70 °C oven until constant weight and the dry weights were recorded. The samples were placed in a muffle furnace at 500 ± 50 °C for 4 hours then allowed to cool overnight. After cooling in the muffle furnace to ~ 100 °C, the beakers containing ash were transferred to desiccators to cool to room temperature. The samples were weighed to determine the % loss on ignition. The ash was slightly moistened using DDI water and 20 mL of 6N HCl was added. The samples were then placed on a hot plate at 100-120 °C until dry. Once the sample in the beaker was dry, the hot plate was elevated to the HI setting for 30 minutes to complete the digestion procedure. The samples were removed from the hot plate and allowed to cool to room temperature.

After cooling, 2.25 mL of 6N HCl was added to each beaker and samples were returned to the hot plate brought to a boil and removed from the hotplate. Ash samples were transferred from the beaker through Whatman glass fiber filters into 50 mL volumetric flasks. The filters were rinsed three times with DDI and the volumetric flasks were brought to volume with DDI water. The volumetric flasks were then covered tightly by parafilm and inverted ten times to ensure the TP sample was well mixed and transferred from the volumetric flasks to 25 mL scintillation vials. The TP samples were analyzed utilizing a Technicon Autoanalyzer within 30 days of digestion (EPA Method 365.1, 1993).

Total Phosphorus

Total phosphorus (TP) was determined by utilizing the ignition method (Anderson, 1976) in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Ground soil samples were weighed between 0.2 and 0.5 g in preweighed 50 mL glass beakers. The samples were placed in a muffle furnace at 500 ± 50 °C for 4 hours then allowed to cool overnight. After cooling in the muffle furnace, the beakers containing ash were transferred to desiccators to cool to room temperature. The samples were weighed to determine the % loss on ignition. The ash was slightly moistened using DDI water and 20 mL of 6N HCl was added. The samples were then placed on a hot plate at 100-120 °C until dry. Once the sample in the beaker was dry, the hot plate was elevated to the HI setting for 30 minutes to complete the digestion procedure. The samples were removed from the hot plate and allowed to cool to room temperature.

After cooling, 2.25 mL of 6N HCl was added to each beaker and samples were returned to the hot plate brought to a boil and removed from the hotplate. Ash samples were transferred from the beaker through Whatman glass fiber filters into 50 mL volumetric flasks. The filters were rinsed three times with DDI and the volumetric flasks were brought to volume with DDI water. The volumetric flasks were then covered tightly by parafilm and inverted ten times to ensure the TP sample was well mixed and transferred from the volumetric flasks to 25 mL

scintillation vials. The TP samples were analyzed utilizing a Technicon Autoanalyzer within 30 days of digestion (EPA Method 365.1, 1993).

Percent ash content was calculated by dividing the weight of the sample after ashing by the weight of the sample before ashing then multiplying by 100. TP was calculated by multiplying the concentration obtained from the Technicon Autoanalyzer by the volume of the volumetric flask then dividing by the initial weight of the soil sample before ashing.

Total Nitrogen and Total Carbon

Total nitrogen (TN) and Total Carbon (TC) were determined by utilizing a Carlo Erba EA 1112 in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Soil samples were placed into tin boats and weighed on a microbalance. The tin boats containing samples were then rolled into balls and analyzed on a Carlo Erba Thermo FlashEA 1112 Series machine (Lakewood, NJ) for total C and total N.

Porewater Samples

Porewater was extracted from the soil collected in the field. Soil samples were weighed into large (250 ml) centrifuge tubes. The tubes were then centrifuged at 6000 rpm for 5 minutes. After centrifuging the porewater was poured from the centrifuge tube into a filter vacuum apparatus. A Pall 47mm membrane filter was used to filter the samples. Once filtered the samples were placed in 25 mL scintillation vials.

Soluble Reactive Phosphorus

Soluble reactive phosphorus (SRP) was determined by automated colorimetry (EPA Method 365.1, 1993) in the Wetlands Biogeochemistry Laboratory at University of Florida, Gainesville, FL. Filtered porewater samples were refrigerated at 4 °C until analyzed. Samples were analyzed within 30 days of collection.

Total Soluble Phosphorus

Total soluble phosphorus (TSP) was determined by autoclave digestion in the Wetlands Biogeochemistry Laboratory at University of Florida, Gainesville, FL. Filtered porewater samples acidified with ultra concentrated sulfuric acid were refrigerated at 4 °C until digested. Samples were digested within 30 days of collection. To digest the water samples 10 mL of each sample was pipetted into a 40 mL glass vial. Then approximately 0.15 g of potassium persulfate and 0.5 mL of 11N sulfuric acid was added to each vial. Each vial was loosely capped with PIFE lined screw cap and placed in the autoclave. The samples were digested in the autoclave for 1 hour at 121 °C and a pressure of 15 psi. After digestion the caps were tightened on each vial and the samples were stored at room temperature until analyzed. The TSP digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 365.1, 1993).

Total Dissolved Calcium

Total Dissolved Calcium (TDCa) was determined by Soil Testing Analytical Research Laboratory at UF (EPA Method 200.7). Filtered samples acidified with concentrated nitric acid were refrigerated at 4 °C until analyzed.

pH

The pH was determined in the Wetlands Biogeochemistry Laboratory at the University of Florida, Gainesville, FL using a Fisherbrand. The probe was calibrated using three standards (pH of 4, 7, 10) before each use and was rinsed thoroughly with DDI between samples.

Total Kjeldahl Nitrogen

Total Kjeldahl Nitrogen (TKN) was determined for water utilizing the Kjeldahl Digestion and automated colorimetry in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Unfiltered water samples acidified with ultra concentrated sulfuric acid were preserved on ice and transferred to a refrigerator to be cooled and stored at a constant temperature of 4 °C upon arrival to laboratory. Samples were digested within 30 days of collection. 10 mL samples were pipetted into labeled 50 mL glass digestion tubes. After pipetting water samples into digestion tubes, approximately 0.3 g of Kjeldahl salt catalyst and 0.5 mL of concentrated sulfuric acid was added to each tube. The glass digestion tubes were then placed in a digestion block at 160 °C for 2 hours and 360 °C for 30 minutes. After cooling the block to approximately 100 °C the digestion tubes were then removed from the digestion block and 10 mL of DDI water was added to each tube. After the addition of DDI each tube was mixed using a vortex shaker. The TKN sample digests were analyzed using a Technicon Autoanalyzer within 30 days of the digestion (EPA Method 351.2, 1993).

Nitrate and Nitrite

Nitrate and nitrite were determined by automated colorimetry in the Wetlands Biogeochemistry Laboratory at the University of Florida, Gainesville, FL using an Alpkem RFA in the (EPA Method 353.2, 1983). Filtered porewater samples acidified with ultra concentrated sulfuric acid were refrigerated at 4 °C until analyzed. Samples were analyzed within 30 days after collection.

Ammonium

Ammonia was determined by automated colorimetry using a Technicon Autoanalyzer in the Wetlands Biogeochemistry Laboratory at the University of Florida, Gainesville, FL (EPA Method 350.1, 1993). Filtered porewater samples acidified with ultra concentrated sulfuric acid refrigerated at 4 °C until analyzed. Samples were analyzed within 30 days after collection.

Sulfate

Sulfate was determined by the Wetlands Biogeochemistry Laboratory at the University of Florida, Gainesville, FL (EPA Method 300.0, 1993). Filtered porewater samples were frozen until analyzed. Samples were analyzed within 30 days after collection.

Vegetation Samples

Vegetation samples were collected and preserved in plastic bags on ice until they could be transferred to a refrigerator with a constant temperature of 4°C. Each sample was then separated by plant species and weighed. Each plant species was placed in a separate paper bag and dried at 90 °C for at least 3 days. After the samples were completely dried they were weighed. The dried plants were ground using an electric plant grinder and shaken threw a size 60 screen mesh and placed in labeled 25 mL scintillation vials.

Total Phosphorus

Total phosphorus (TP) was determined by utilizing the ignition method (Anderson, 1976) in the Wetlands Biogeochemistry Laboratory at the University of Florida, Gainesville, FL. Ground plant samples were weighed between 0.2 and 0.5 g in preweighed 50 mL glass beakers. The beakers were then placed in a muffle furnace at fired at 500 ± 50 °C for 4 hours then allowed to cool overnight. After cooling in the muffle furnace the beakers containing ash were transferred to desiccators to cool further. Once cool the beakers were weighed. After weighing the ash was moistened by DDI then 20 mL of 6N HCl was added to each beaker. The beakers were then placed on a hot plate set on 3 to cook until dry. Once the sample in the beaker was dry the hot plate was elevated to the HI setting for 30 minutes to ensure all of the moisture was evaporated from the ash sample. The beakers were then removed from the hot plate and allowed to cool. After cooling 2.25 mL of 6N HCl was added to each beaker. Beakers were then returned to the hot plate and allowed to boil and then quickly were removed. Ash samples were transferred from the beaker threw Whatman filters into 50 mL volumetric flasks. The filters were rinsed three times with DDI and then the volumetric flasks were brought to volume with DDI. The volumetric flasks were then covered tightly by parafilm and inverted ten times to ensure the TP sample was well mixed. TP samples were transferred from the volumetric flasks to 25 mL scintillation vials. The TP samples were analyzed utilizing a Technicon Autoanalyzer within 30 days of transfer (EPA Method 365.1, 1993).

Percent ash content was calculated by dividing the weight of the sample after ashing by the weight of the sample before ashing then multiplying by 100. TP was calculated by multiplying the concentration obtained from the Technicon Autoanalyzer by the volume of the volumetric flask then dividing by the initial weight of the vegetation sample before ashing.

Total Nitrogen and Total Carbon

Total nitrogen (TN) and Total Carbon (TC) were determined by utilizing a Carlo Erba EA 1112 in the Wetland Biogeochemistry Laboratory at University of Florida, Gainesville, Florida. Vegetation samples were placed into tin boats and weighed on a microbalance. The tin boats containing samples were then rolled into balls and analyzed on a Carlo Erba Thermo FlashEA 1112 Series machine (Lakewood, NJ) for total C and total N.

3. Results

The data obtained in this study are presented in full in the appendixes.

Trip 6 (May 3-4, 2004) included few other sites in addition to the stations sampled in the other vegetation-specific sampling events (trips 2 and 4). These extra sites were sampled only for water in order to have more data for the spatial analysis of water quality.

4. Discussion

A preliminary analysis of the water quality parameters was done by taking the averages of four sections of the wetland corresponding to the areas close to the influent (I), the East side of the limerock berm (II), the west side of the lime berm (III) and the one close to the effluent (IV) (Figure 5).

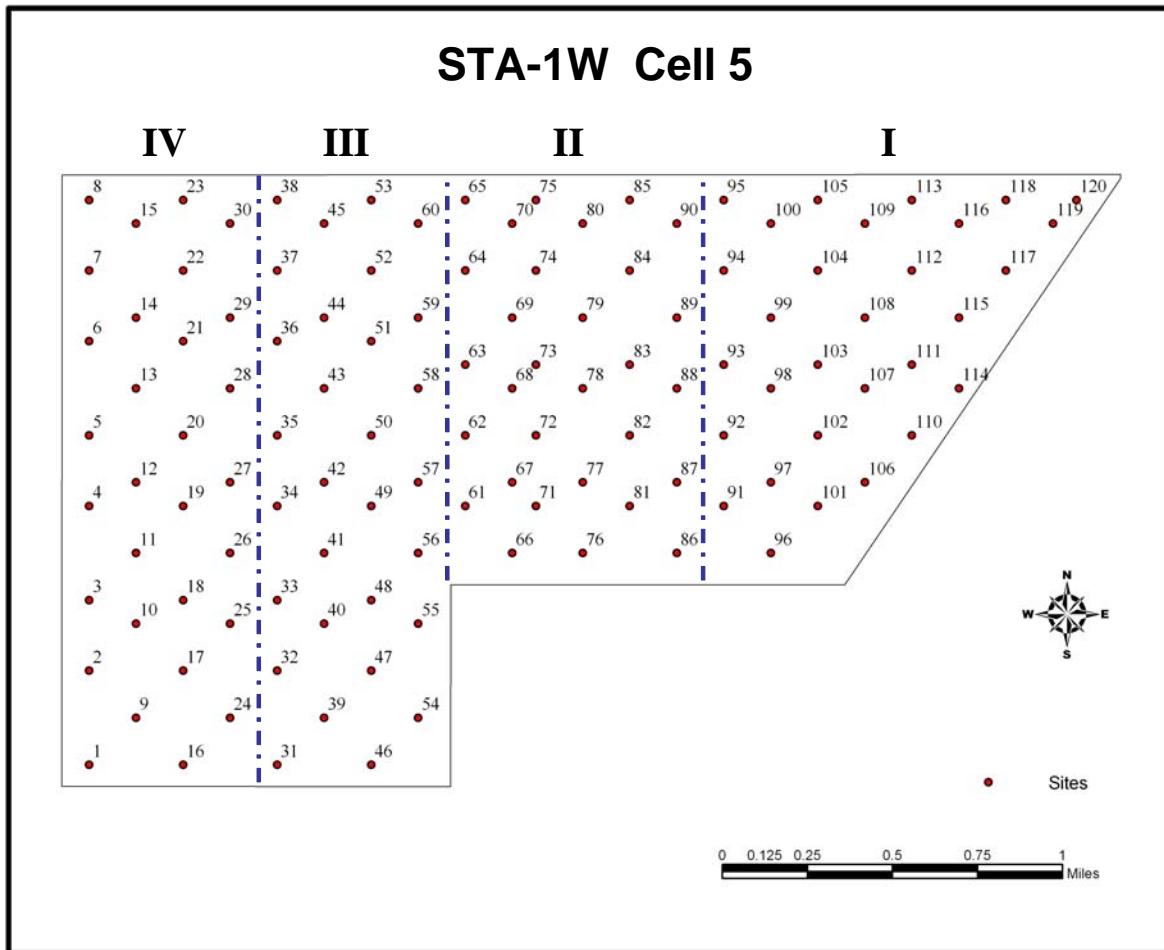


Figure 5. Sections of STA-1W Cell 5 averaged for analysis of results.

VEGETATION

The data collected in August 03, January 04 and April 04 show a decrease in biomass over the time of the study (Figure 6), probably related with the change of seasons from Fall to Winter and Spring.

The sampling fund that Hydrilla was the most abundant species in the wetland and has overtaken over the other species that initially exists there. There is no significant SAV diversity in cell 5. The other species account only for approximately 10 % of the total SAV present. Floating plants were present only in the first two samplings. The application of herbicides kept the floating plants populations at very low levels.

There was no correlation between SAV species and water quality parameters since the SAV was primarily hydrilla.

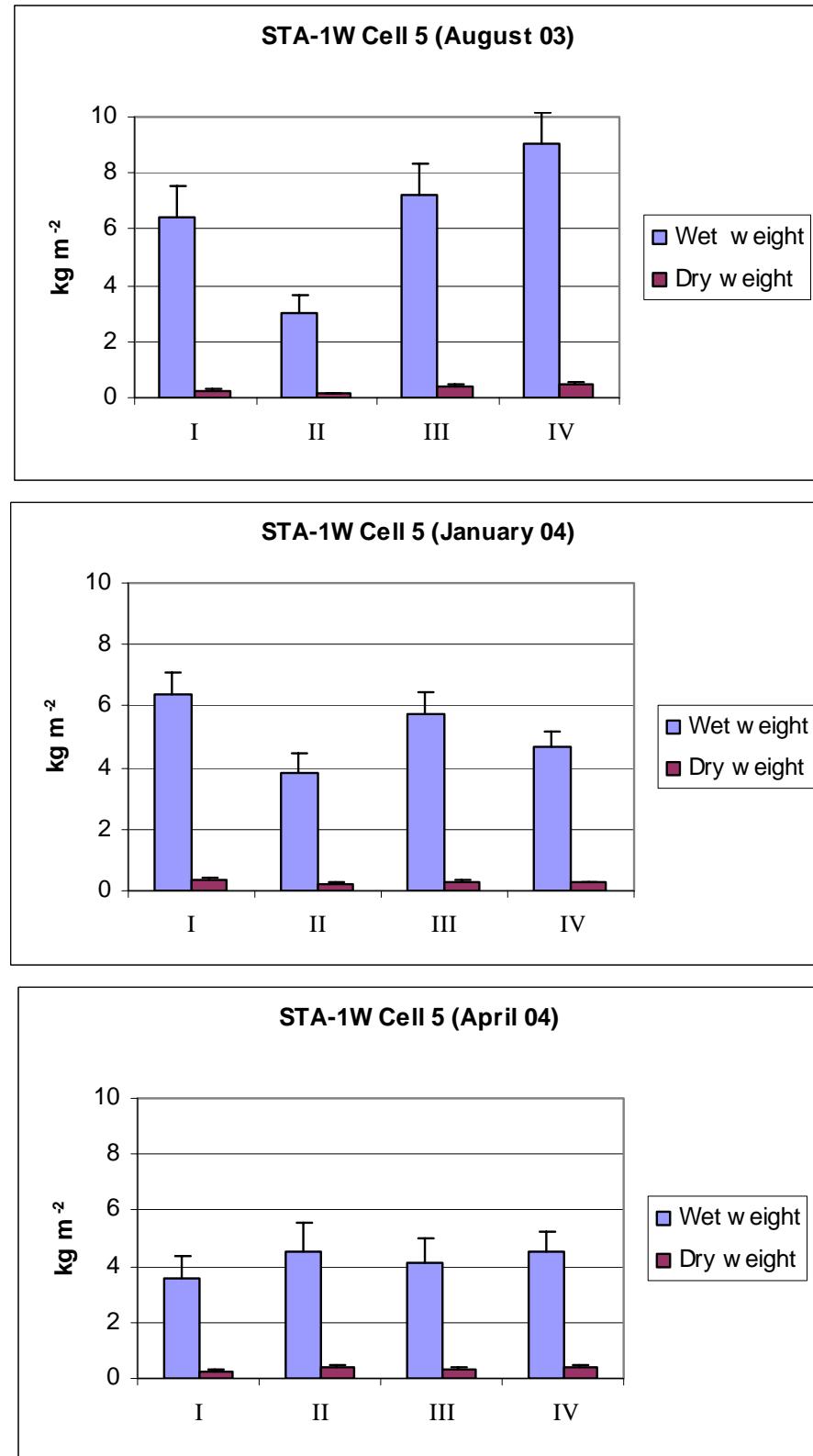


Figure 6. Average biomass collected (wet and dry weight) in STA-1W Cell 5.

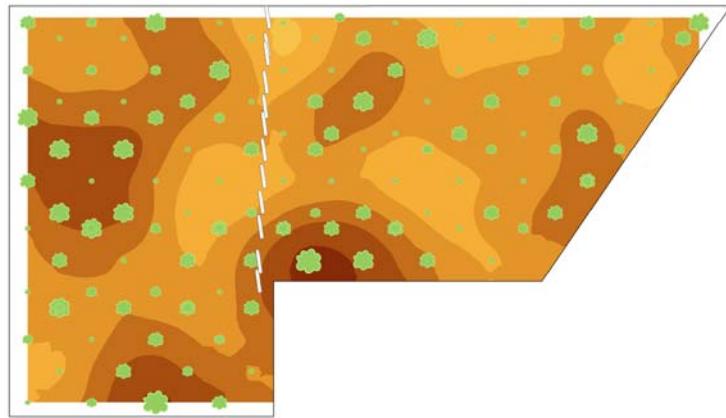


Figure 7. Interpolation of plant dry weight in STA-1W Cell 5.

WATER QUALITY PARAMETERS

Dissolved Oxygen.

During the sampling events it was observed that the dissolved oxygen (DO) increases through the wetland from concentrations about 2.5 mg L^{-1} to about 8 mg L^{-1} . (Figure 8)

A preliminary spatial analysis showed clearly this increasing trend of DO through the wetland as the water travels from east to west (Figure 9).

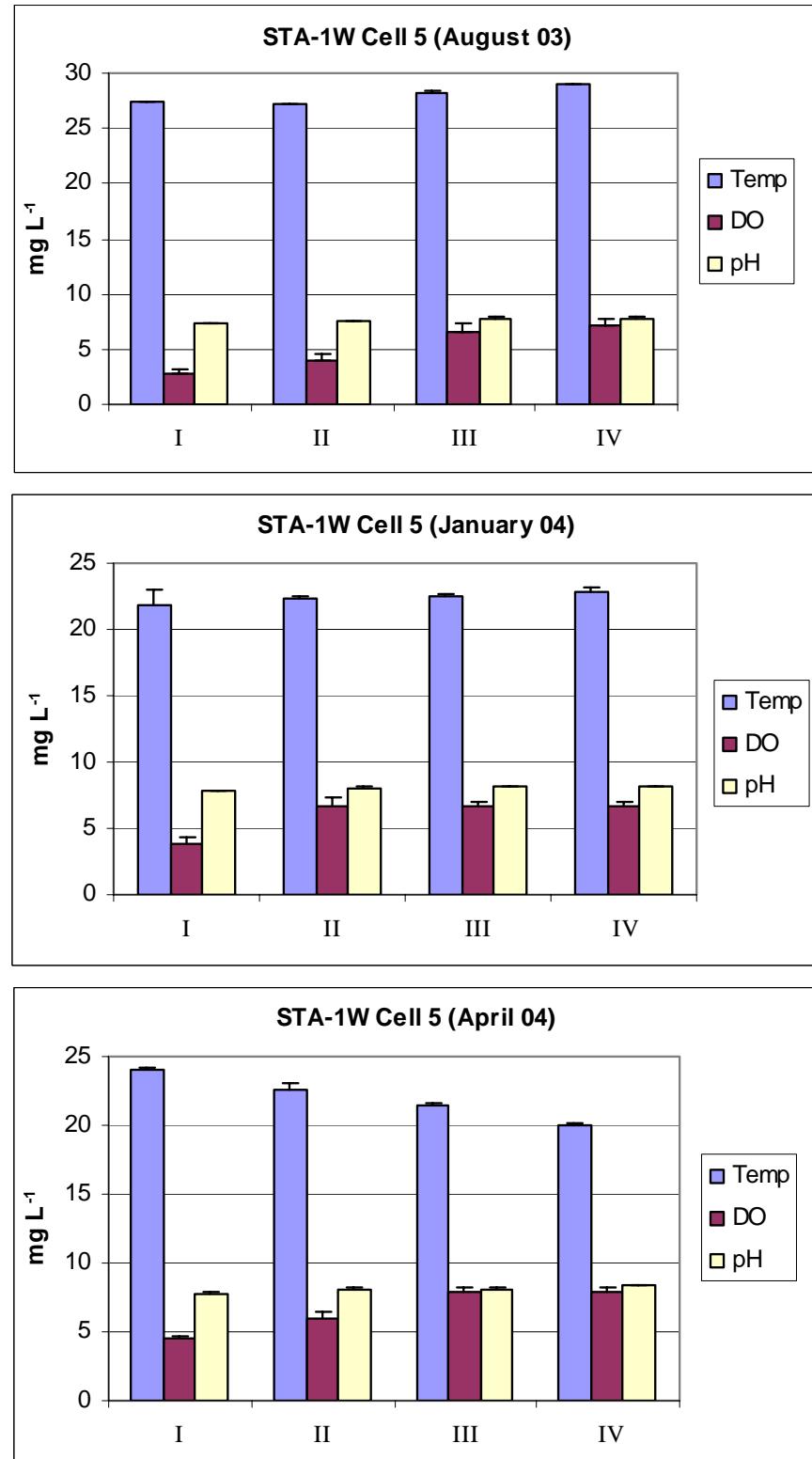


Figure 8. Averages of Dissolved Oxygen (DO), pH and Temperature (Temp) in STA-1W Cell 5B. The error bars represent one standard error.

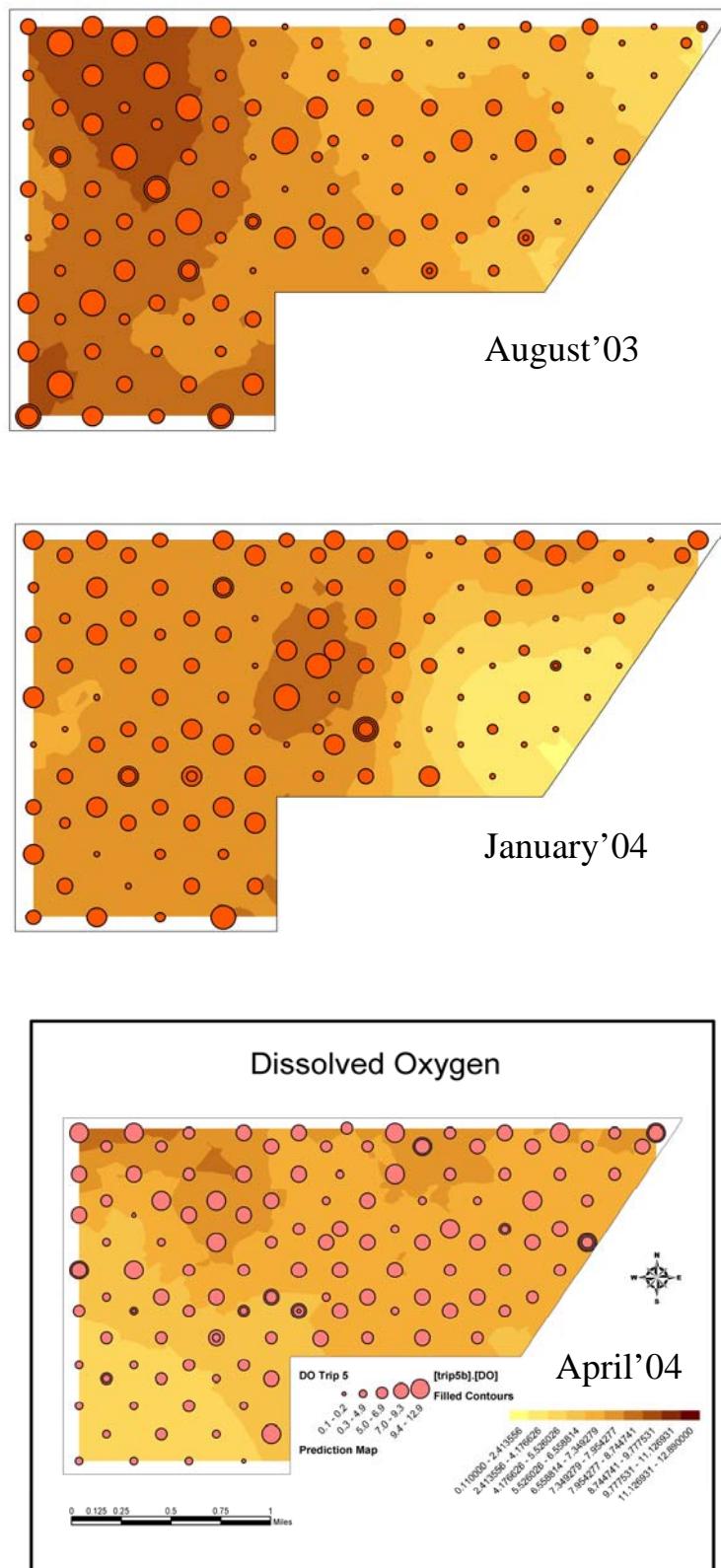


Figure 9. Interpolation of Dissolved Oxygen concentrations in STA-1W Cell 5.

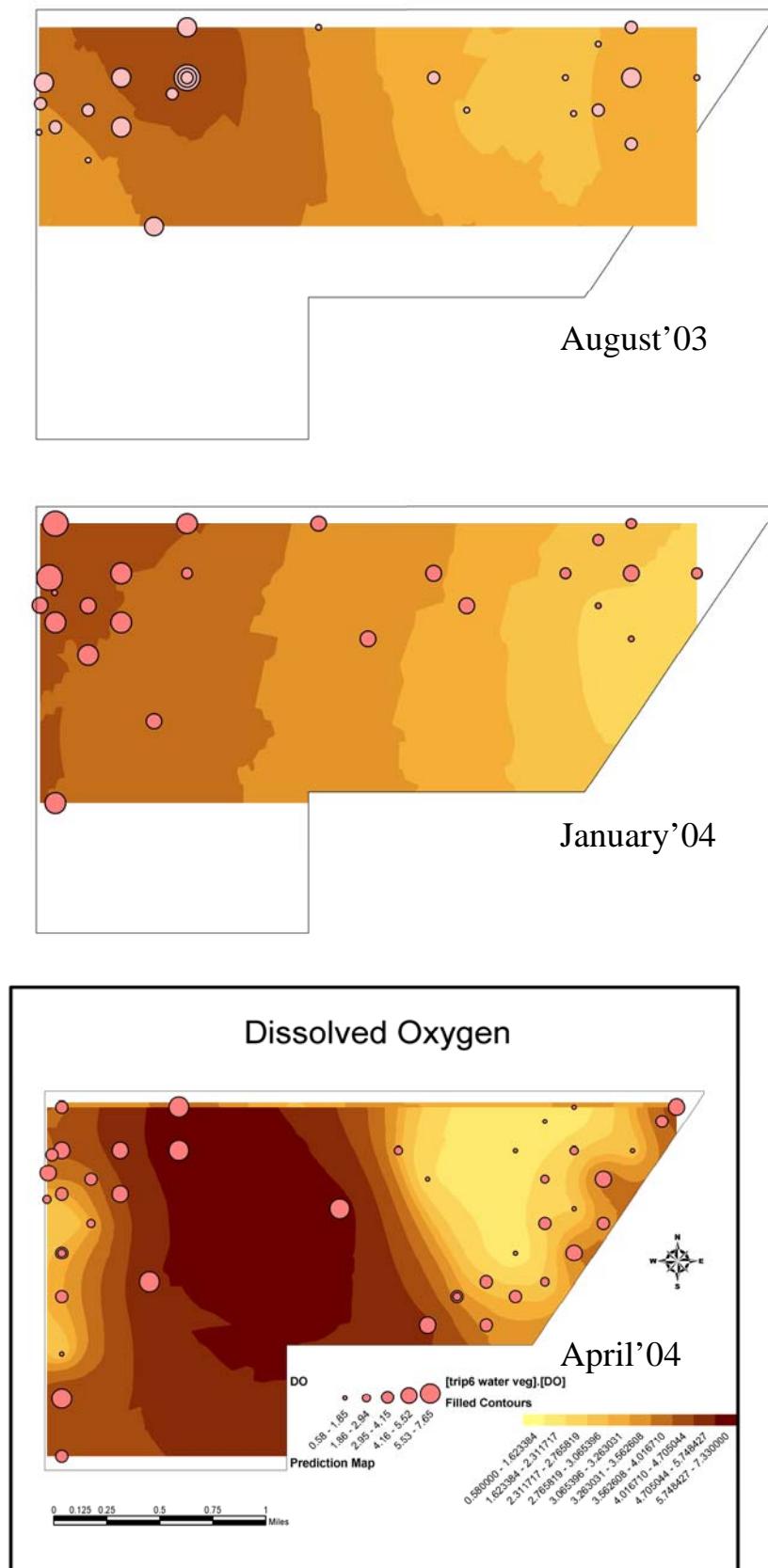


Figure 10. Interpolation of Dissolved Oxygen concentrations in STA-1W Cell 5.

Total Suspended Solids and Non-Volatile Suspended Solids.

TSS and NVSS were very variable in Cell 5 during this study (Figure 11). The concentration of TSS and NVSS in August 03, Sep 03, Jan 04 and Feb 04 are very low and only a slight reduction of TSS and NVSS can be observed (Figure 12). However but It is important to remember that the graphs corresponding to Sept 03, Feb 04, and May 04 included very few points for the averages of sections II and III, and therefore those values should be taken with reservation.

TSS levels were very high in April 04 and May 04 , averaging 70.60 mg L^{-1} and 110.1 mg L^{-1} respectively (Table 4), in comparison to the previous four sampling events (Figure 11, Table 4). The high TSS levels observed are explained by the fact that those last two sampling trips were done right after storms and the wetland had been disturbed by fast winds and the influent storm water was loaded with suspended particles. Even though the high concentrations of TSS in April and May, the wetland reduced TSS by 72.2 % and 77.1% respectively (Table 4).

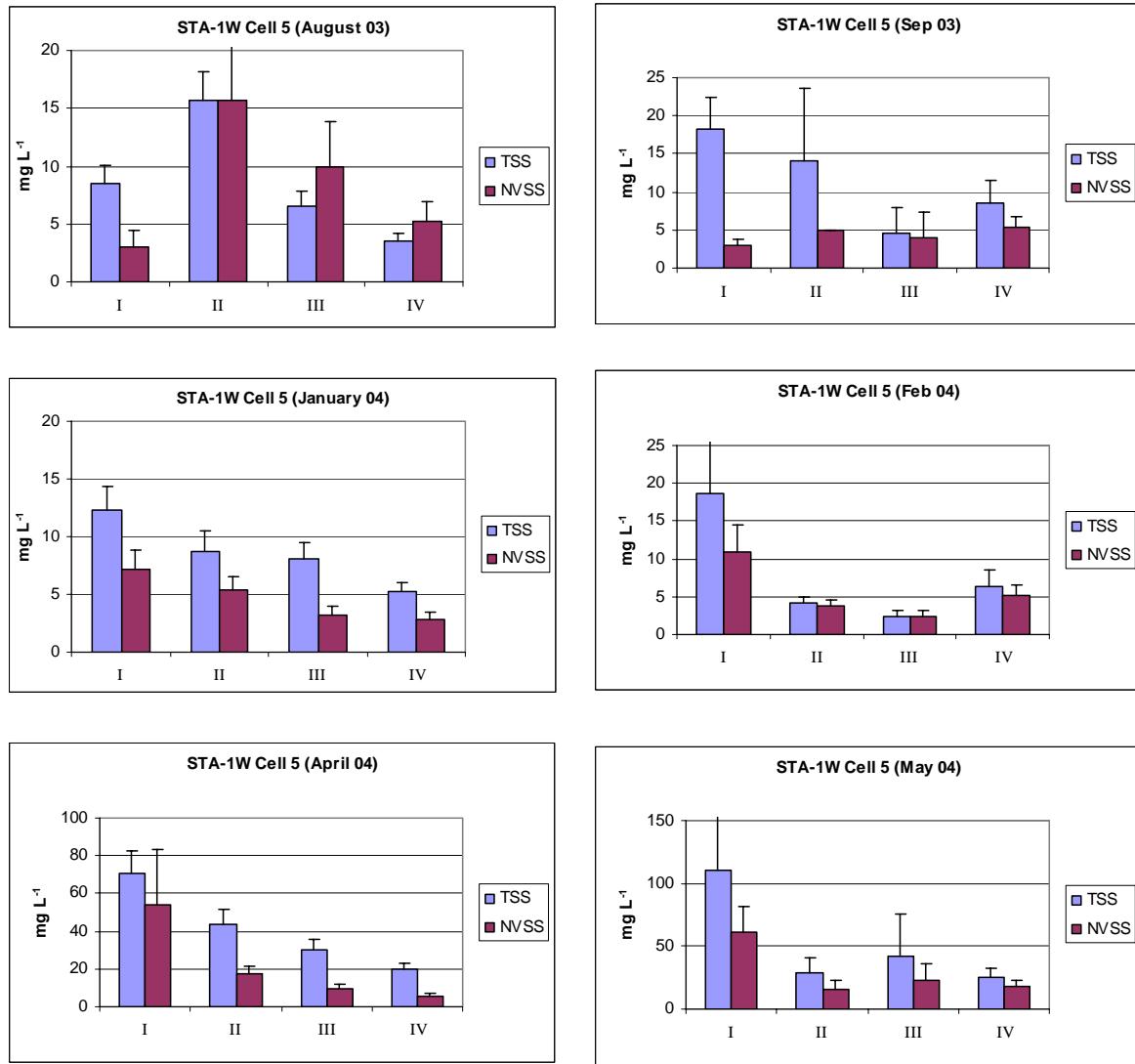
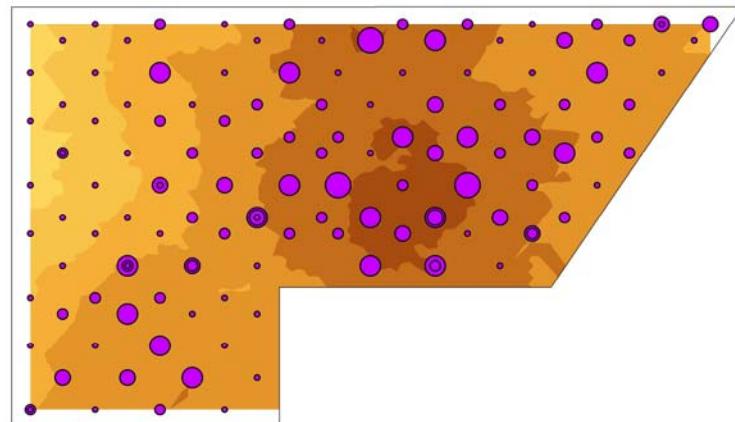
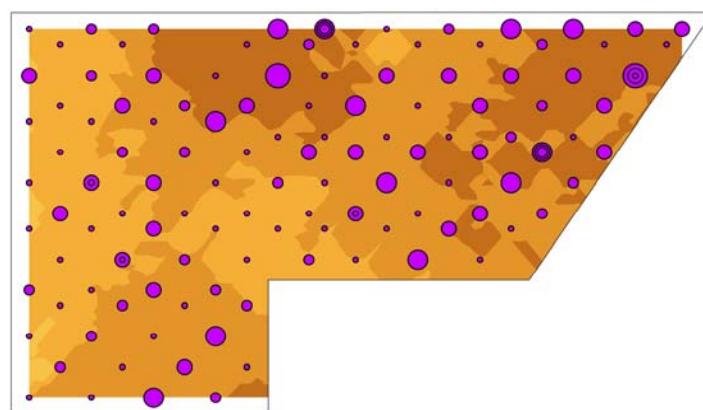


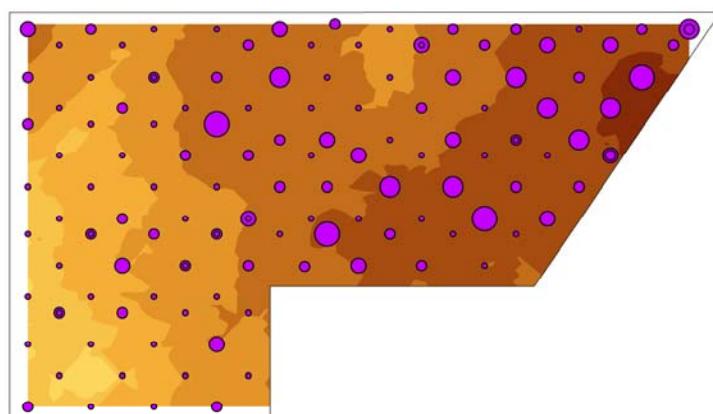
Figure 11. Averages of total suspended solids (TSS) and (non-volatile suspended solids) NVSS in STA-1W Cell 5B.



August 2003



January 2004



April 2004

Figure 12. Interpolation of TSS in STA-1W Cell 5.

Phosphorus in the water column.

Figure 13 presents the averages of TP, DOP, Particulate P (PP) and SRP for August 03, January 04 and April 04. Dissolved organic P was calculated as TDP – SRP and PP was calculated as TP – TDP.

Removal of TP in the wetland can be observed in the three sampling events. However, in the sampling performed in April 04 the descending tendency in TP throughout the wetland is not as clear as in the other sampling events, as there was higher concentration of TP in section III (Figure 13). The TP and PP averages are higher in this section because of three high values measured (Figure 16). It is possible that these three data points were not representative of the area.

We found higher levels of TP and PP in all sections of the wetland in April 04 in comparison to the previous events. This result agrees with the high levels of TSS observed due to the storms that preceded the sampling event (Figure 12). Overall, the treatment wetland is reducing well TP and TSS (Table 4). The TP concentration in section IV is higher than the desired (0.05 mg L^{-1}) in April and May 2004, but this is probably due to the uncommon conditions of high winds and storms that were present at that time.

Table 4. Total phosphorus and total suspended solids in sections close to the influent (I) and to the effluent (IV) in Cell 5B of STA-1W.

	TP			TSS		
	I	IV	reduction	I	IV	reduction
	mg L ⁻¹	mg L ⁻¹	%	mg L ⁻¹	mg L ⁻¹	%
August'03	0.123	0.053	57.2	8.55	3.47	59.4
January'04	0.088	0.043	51.5	12.29	5.30	56.9
April'04	0.161	0.086	46.6	70.60	19.62	72.2
May'04	0.191	0.066	65.6	110.1	25.22	77.1

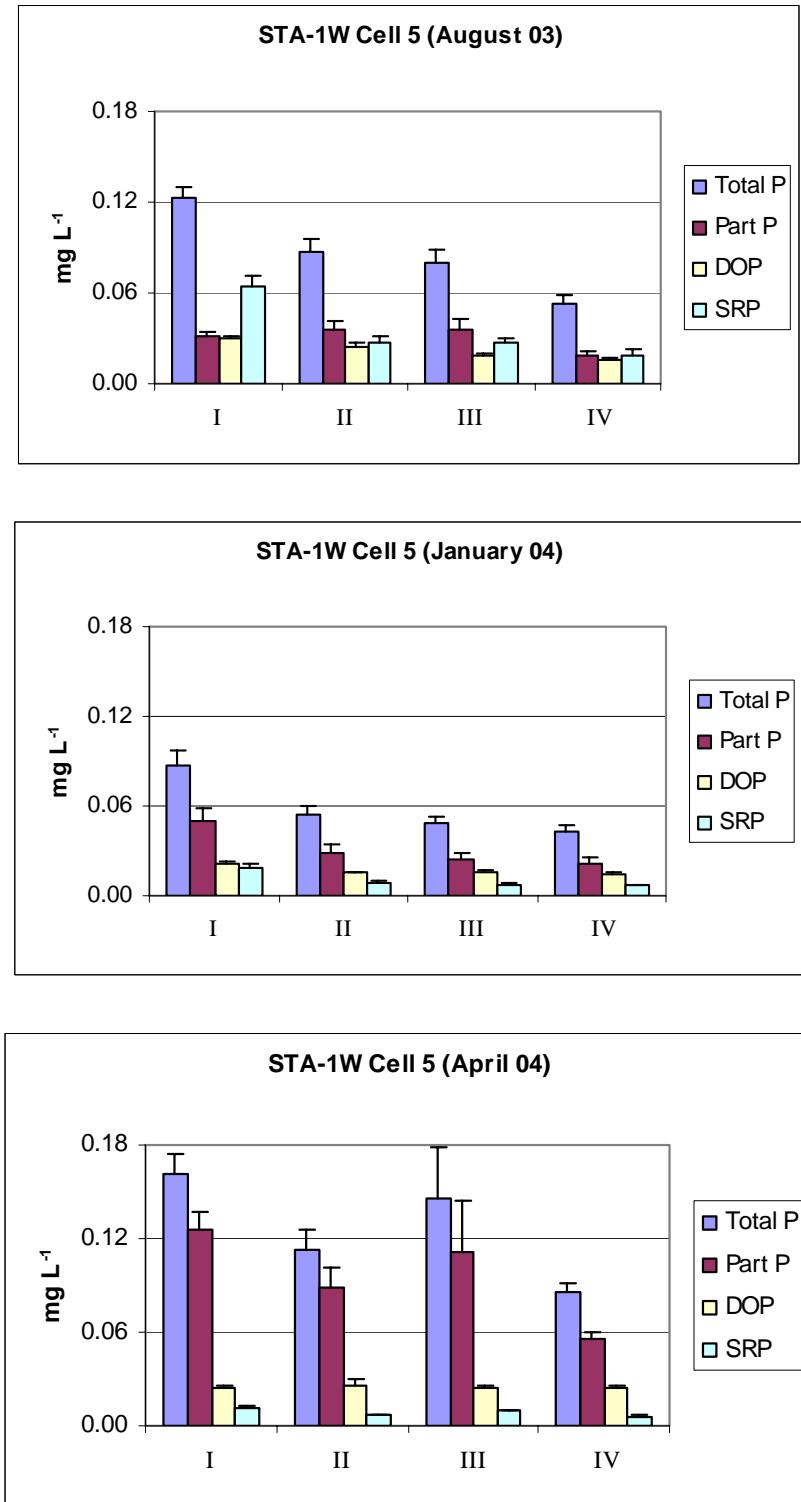


Figure 13. Average Total Phosphorus (TP), Particulate P (Part P), DOP and SRP for August'03, January'04 and April'04. The error bars represent one standard error.

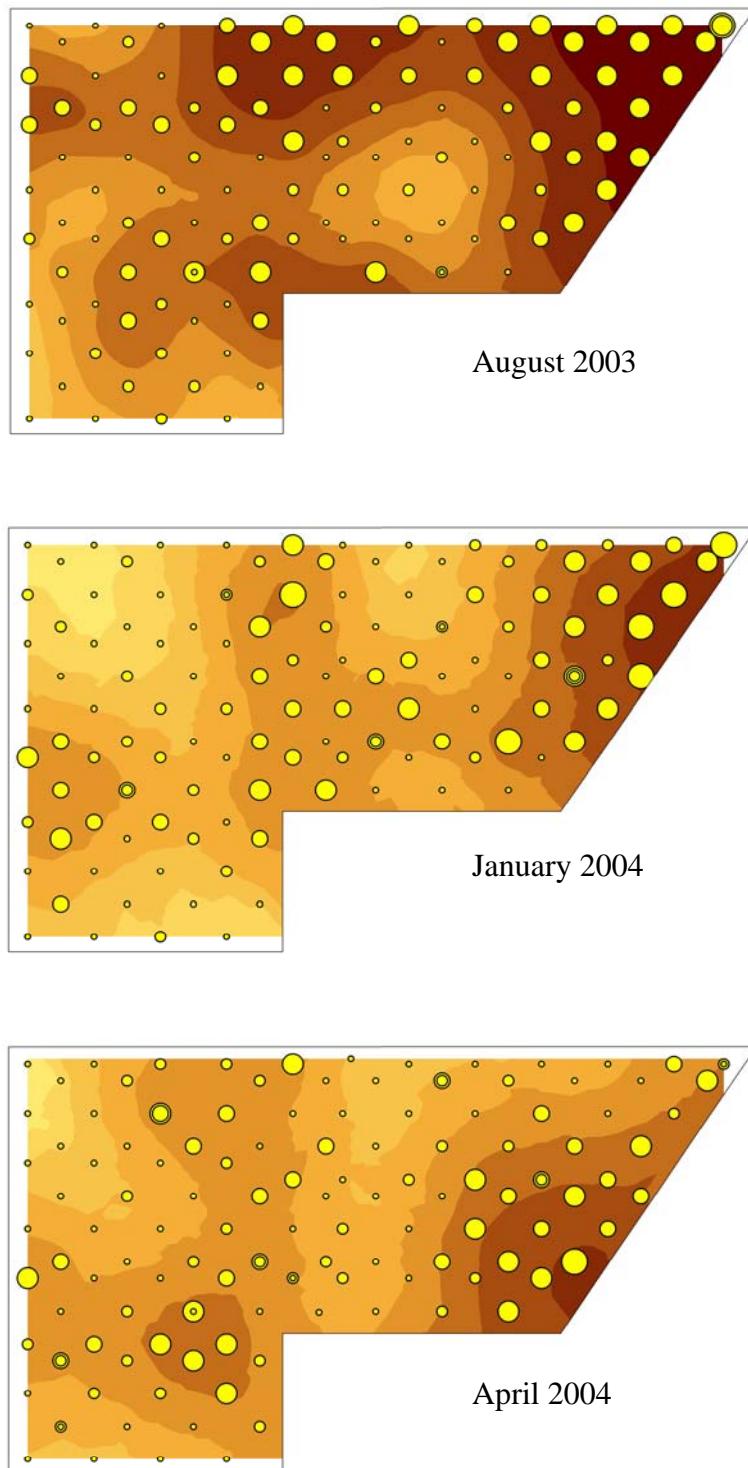


Figure 14. Interpolation of soluble reactive phosphorus (SRP) in water column in STA-1W Cell 5B.

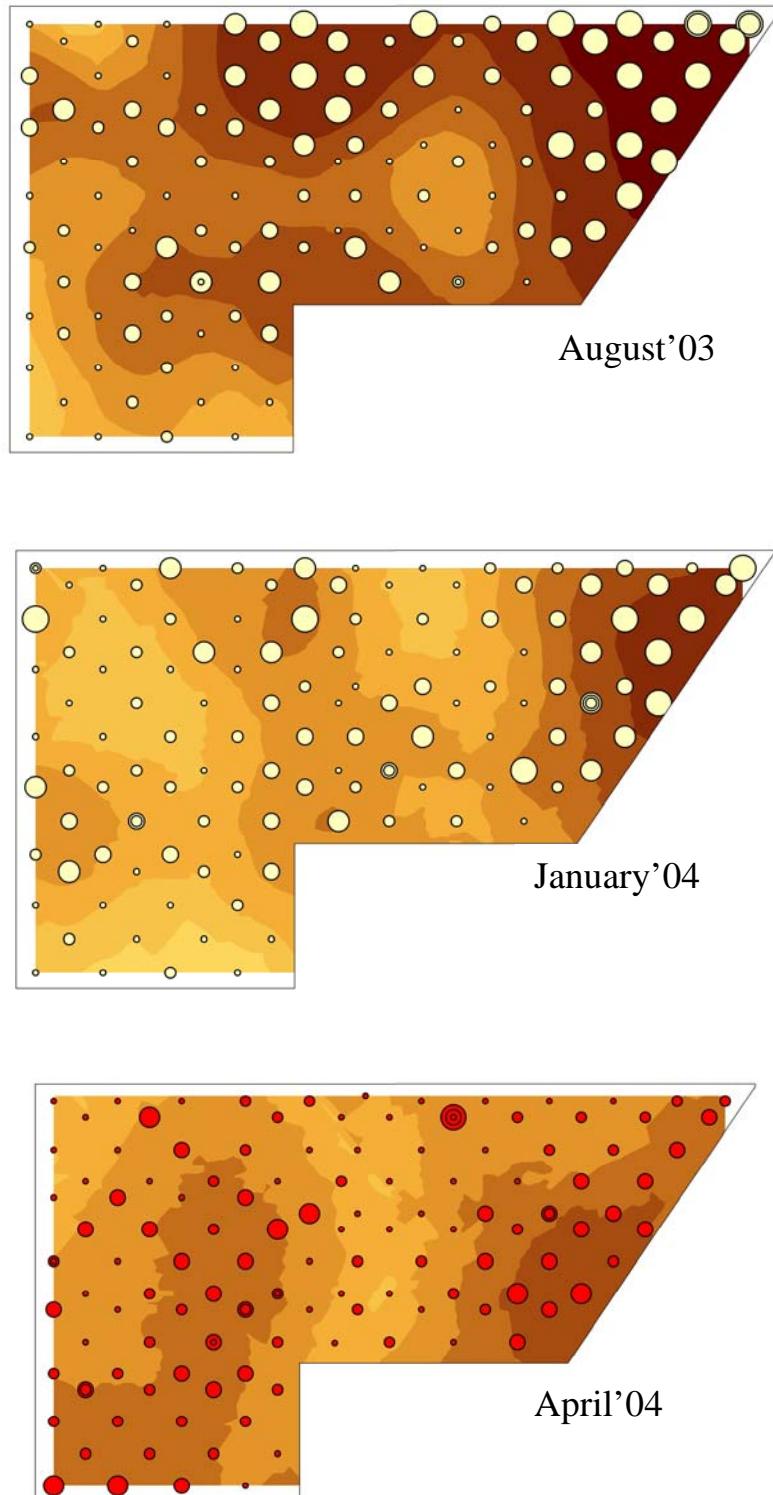


Figure 15. Interpolation of total dissolved phosphorus (TDP) in water column in STA-1W Cell 5.

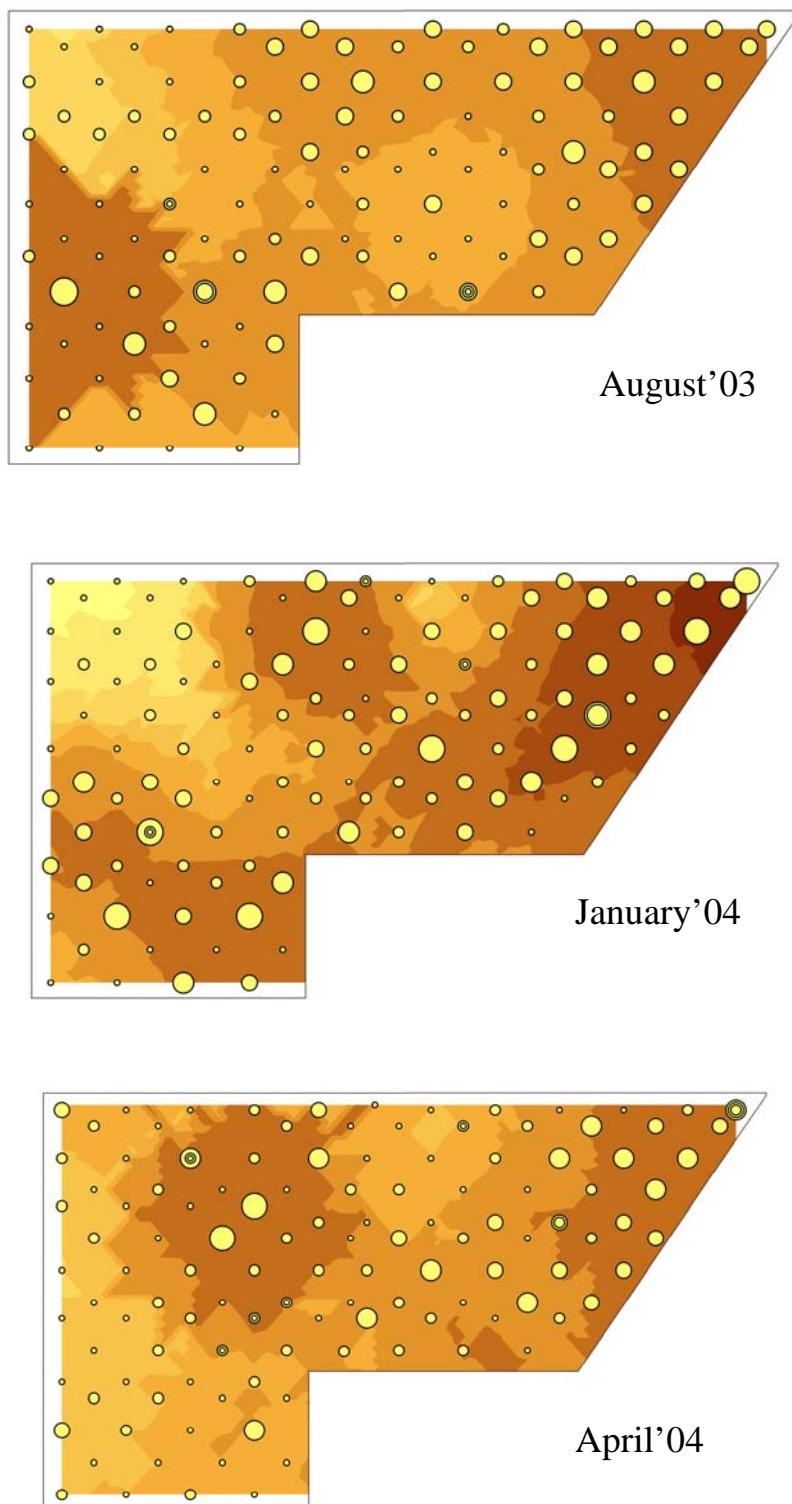


Figure 16. Interpolation of total phosphorus (TP) in water column in STA-1W Cell 5B.

Nitrogen

Measured nitrate and ammonium concentrations were low ($< 0.5 \text{ mg L}^{-1}$) (Figure 17). Total nitrogen (TN) had mean values of $\sim 3 \text{ mg L}^{-1}$ in August 03, $\sim 2 \text{ mg L}^{-1}$ in January 04 and $\sim 4 \text{ mg L}^{-1}$ in April 04 (Figure 16). The spatial analysis (Figure 18) showed a slight nitrate reduction throughout the wetland in August 03, no significant change in January 04 and slight production of nitrate in April 04. These changes observed in the wetland are minimal because the concentration of nitrate is already low with a mean value of 0.108 mg L^{-1} .

There was practically no change in ammonium concentration throughout the wetland (Figure 17). The spatial analysis showed a reduction in the wetland in August 03 (Figure 19). The TN and TON levels in the wetland were very similar in the three sampling events. However, is it possible to observe a light reduction on nitrogen concentrations in January 04 likely due to reduced loading in the winter (Figure 17).

In April'04, there appeared to be a significant increase in nitrate concentration on the down flow side of the lime rock berm (Figure 18). The mean nitrate concentration after the berm was $0.108 \pm 0.006 \text{ mg L}^{-1}$ ($n = 38$) compared with prior to the berm $0.047 \pm 0.005 \text{ mg L}^{-1}$. The change is likely related to nitrification in the water column converting ammonium to nitrate. In summary, there was no significantly quantitative reduction of nitrogen species in Cell 5B of STA-1W (Figures 17 and 20). However, the wetland primary function is to reduce total P concentration.

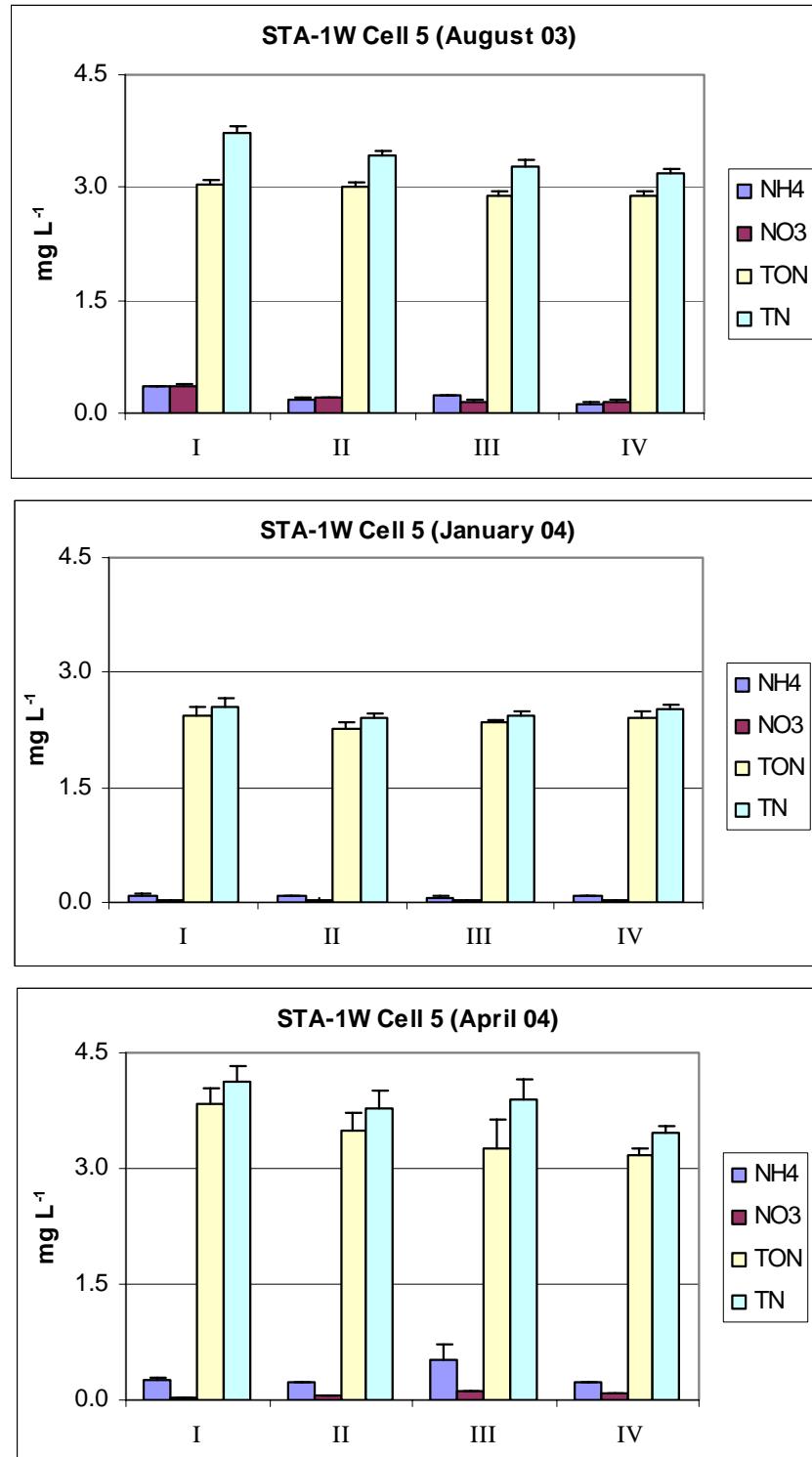


Figure 17. Nitrogen in water column in STA-1W Cell 5B.

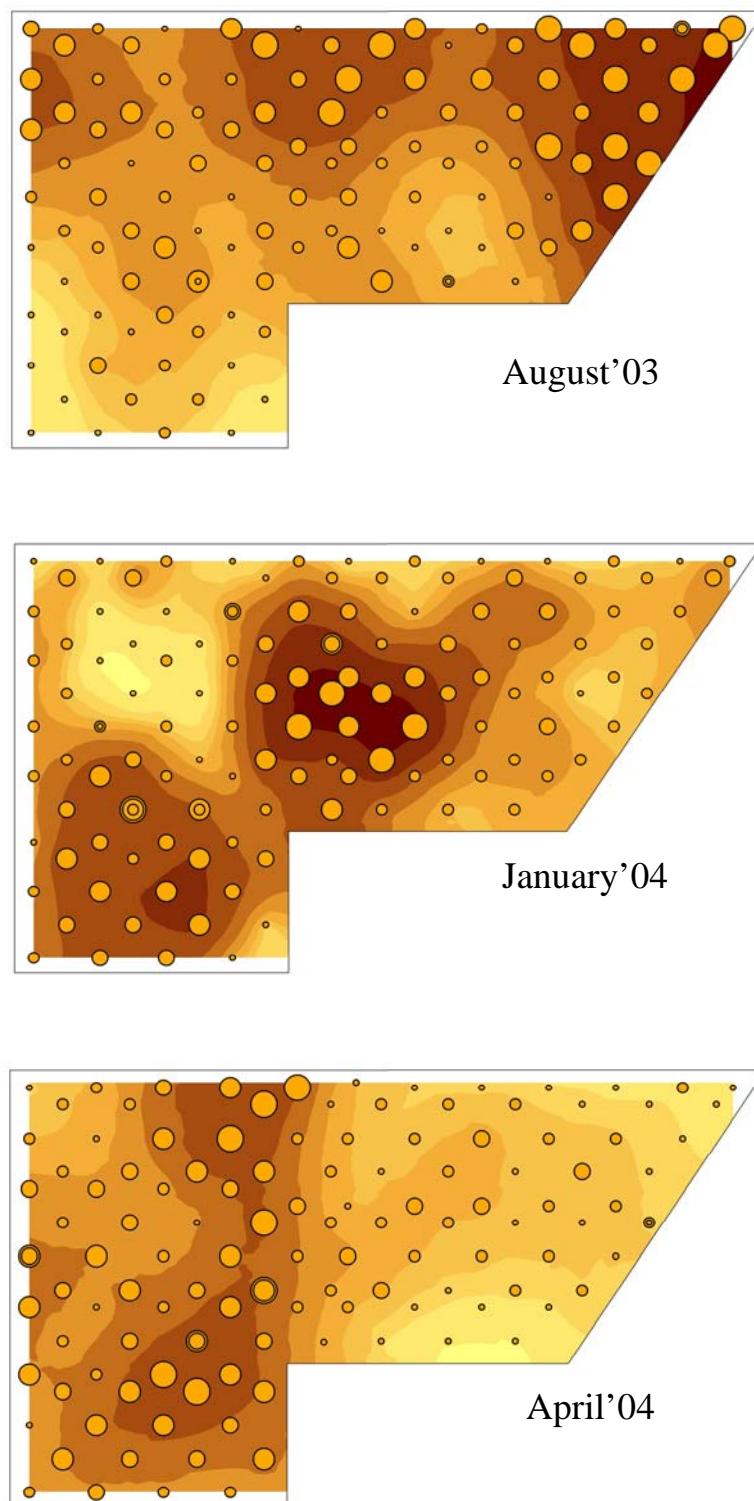


Figure 18. Interpolation of nitrate concentration in the water column in STA-1W Cell5B.

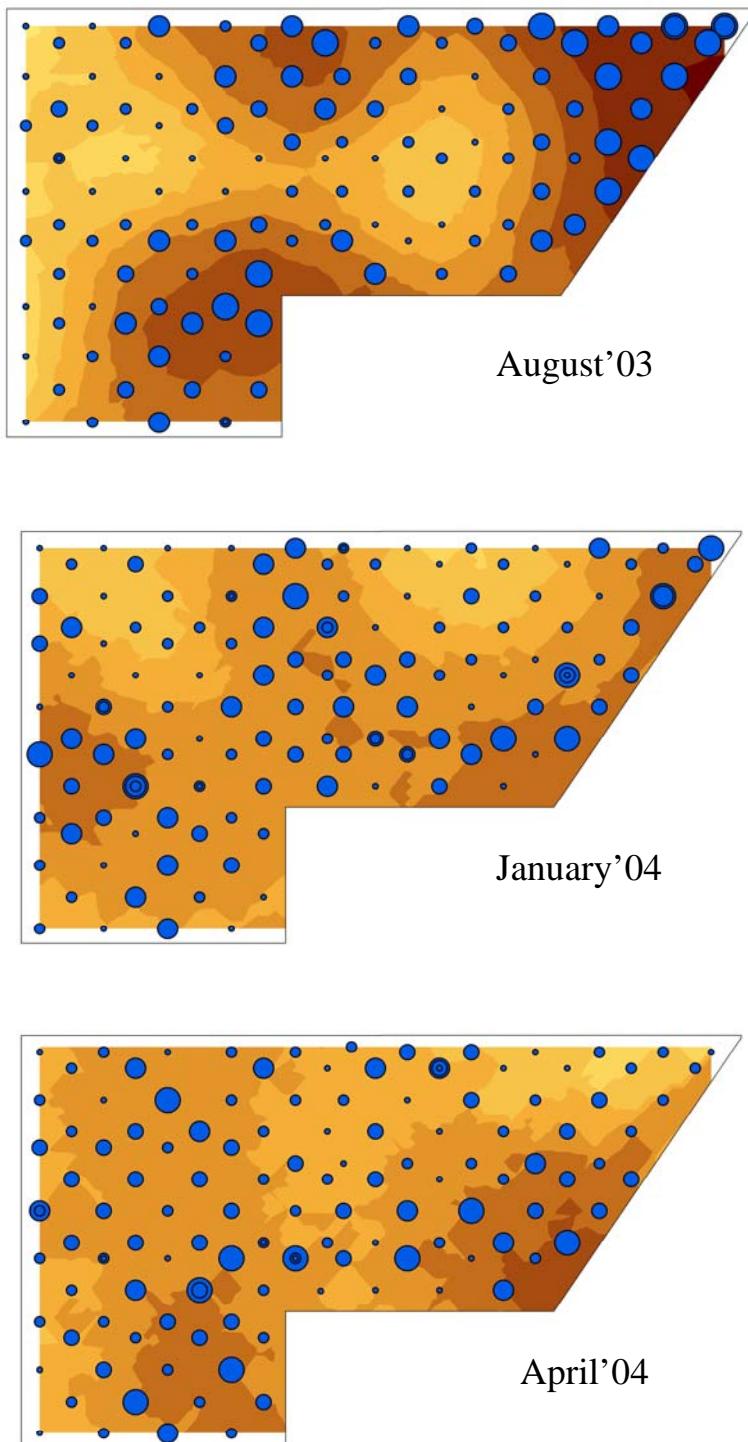


Figure 19. Interpolation of ammonium in the water column in STA-1W Cell5B.

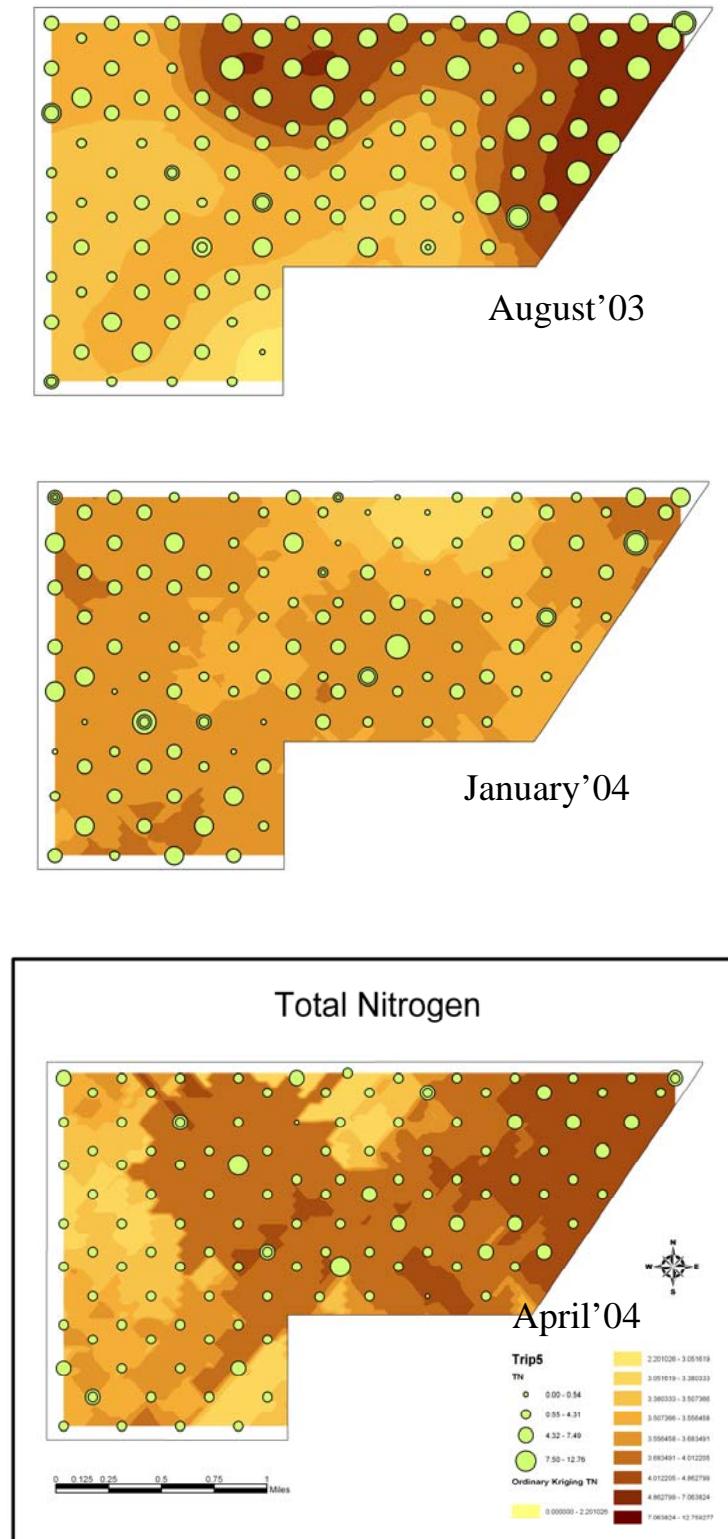


Figure 20. Interpolation of total nitrogen (TN) concentration in water column in STA-1W Cell 5B.

CONCLUSIONS

The sampling events in Cell 5 showed that hydrilla was the most abundant species in the wetland and has overtaken the other species that initially were seeded. Other species account only for approximately 10 % of the SAV present by site. Floating plants were present only in the first two samplings. The application of herbicides to eliminate floating plants led to the low numbers over time.

Cell 5B of STA-1W is reducing well total phosphorus and total suspended solids with decreases to 0.043-0.08 mg L⁻¹ (46.6-65.6 % reduction) and to 3.47-25.22 mg L⁻¹ (56.9-72.2 % reduction), respectively, across the wetland (Table 4). The high concentrations of TP and TSS in April'04 and May'04 were due to the storms and associated high winds that happened during sampling.

The lime rock berm did not have a noticeable effect on the reduction of P from the water column during the period of study. However, it still could be improving the flow patterns, minimizing short circuiting and therefore improving P removal performance in the wetland. A more detailed study would be necessary to evaluate the performance of the lime rock berm over a longer period of time. The limited sampling and weather conditions do not allow concluding about the performance of the berm at this time.

Nitrogen levels in the wetland were low, and small nitrogen reductions were observed. The wetland is increasing levels of DO appreciably from 2.71, 3.88 and 4.50 mg L⁻¹ in section I to 7.08, 6.58 and 7.94 mg L⁻¹ in section IV for August'03, January'04 and April'04 respectively. It is not possible to establish a relationship between type of vegetation and water quality since hydrilla is the overwhelming majority of the plant biomass in Cell 5B of STA-1W. A controlled mesocosms study would be better suited to identify plant specific P removal from the water column.

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Appendix 1.1. Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
1	1	26.651	-80.443	8/22/2003	13:40	0.006	0.019	0.03	326	240	0.042
1	2	26.651	-80.443	8/22/2003	13:40	0.004	0.019	0.029	329	252	0.051
1	3	26.651	-80.443	8/22/2003	13:40	0.004	0.014	0.022	321	256	0.042
2	4	26.655	-80.443	8/22/2003	13:10	0.004	0.016	0.026	341	300	0.038
3	5	26.658	-80.443	8/22/2003	13:20	0.004	0.018	0.023	326	322	0.037
4	6	26.662	-80.443	8/22/2003	13:10	0.018	0.032	0.062	344	320	0.167
5	7	26.665	-80.443	8/22/2003	12:55	0.006	0.018	0.034	337	320	0.046
6	8	26.669	-80.443	8/22/2003	12:40	0.042	0.066	0.07	335	360	0.130
6	9	26.669	-80.443	8/22/2003	12:40	0.046	0.068	0.075	332	344	0.140
6	10	26.669	-80.443	8/22/2003	12:40	0.046	0.058	0.083	326	344	0.133
7	11	26.672	-80.443	8/22/2003	12:30	0.036	0.057	0.081	344	312	0.091
8	12	26.675	-80.443	8/22/2003	12:15	0.002	0.018	0.021	338	340	0.033
9	13	26.653	-80.441	8/22/2003	11:55	0.010	0.024	0.092	365	304	0.100
10	14	26.657	-80.441	8/21/2003	18:10	0.009	0.033	0.028	312	312	0.149
11	15	26.660	-80.441	8/22/2003	10:35	0.020	0.034	ND	329	320	0.119
12	16	26.663	-80.441	8/21/2003	17:55	0.011	0.034	0.03	332	332	0.119
13	17	26.667	-80.441	8/21/2003	18:46	0.004	0.013	0.022	312	248	0.153
13	18	26.667	-80.441	8/21/2003	18:46	0.002	0.014	0.021	313	264	0.079
13	19	26.667	-80.441	8/21/2003	18:46	0.004	0.014	0.021	309	264	0.060
14	20	26.670	-80.441	8/21/2003	16:40	0.063	0.088	0.094	347	356	0.244
15	21	26.674	-80.441	8/21/2003	18:37	0.006	0.014	0.018	338	356	0.116
16	22	26.651	-80.439	8/21/2003	16:20	0.006	0.024	0.031	329	296	0.151
17	23	26.655	-80.439	8/21/2003	18:26	0.014	0.022	0.05	335	356	0.134
18	24	26.658	-80.439	8/21/2003	15:55	0.004	0.023	0.049	323	284	0.065
19	25	26.662	-80.439	8/21/2003	17:56	NSA	0.024	0.045	323	340	0.139
20	26	26.665	-80.439	8/21/2003	15:40	0.004	0.024	0.029	323	312	0.080
21	27	26.669	-80.439	8/21/2003	17:48	0.028	0.032	0.064	NSA	348	0.137
22	28	26.672	-80.439	8/21/2003	15:20	0.002	NSA	0.034	341	276	0.068
23	29	26.675	-80.439	8/21/2003	17:37	0.007	0.014	0.032	350	348	0.076
24	30	26.653	-80.437	8/21/2003	15:05	0.020	0.034	0.094	326	340	0.248
25	31	26.657	-80.437	8/21/2003	17:25	0.062	0.079	0.183	341	330	0.441
26	32	26.660	-80.437	8/21/2003	14:30	0.041	0.068	0.089	341	324	0.303

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
26	33	26.660	-80.437	8/21/2003	14:30	0.039	0.066	0.096	335	336	0.309
26	34	26.660	-80.437	8/21/2003	14:30	0.044	0.062	0.091	338	328	0.305
27	35	26.663	-80.437	8/21/2003	17:15	0.014	0.022	0.035	329	316	0.104
28	36	26.667	-80.437	8/21/2003	14:20	0.009	0.030	0.052	335	306	0.077
29	37	26.670	-80.437	8/21/2003	17:09	0.052	0.071	0.083	341	332	0.143
30	38	26.674	-80.437	8/21/2003	14:05	0.018	0.036	0.058	347	336	0.135
31	39	26.651	-80.435	8/21/2003	16:58	0.017	0.032	0.05	340	336	0.386
32	40	26.655	-80.435	8/21/2003	13:45	0.017	0.034	0.128	332	344	0.413
33	41	26.658	-80.435	8/21/2003	16:41	0.017	0.034	0.083	344	328	0.230
34	42	26.662	-80.435	8/21/2003	13:35	0.047	0.081	0.089	329	336	0.358
35	43	26.665	-80.435	8/21/2003	16:24	0.009	0.026	0.079	338	296	0.059
35	44	26.665	-80.435	8/21/2003	16:25	0.012	0.024	0.051	326	264	0.044
35	45	26.665	-80.435	8/21/2003	16:26	0.010	0.026	0.052	335	256	0.045
36	46	26.669	-80.435	8/21/2003	13:20	0.034	0.063	0.068	329	348	0.081
37	47	26.672	-80.435	8/21/2003	16:14	0.004	0.013	0.034	365	324	0.075
38	48	26.675	-80.435	8/21/2003	13:00	0.004	0.021	0.039	350	360	0.427
39	49	26.653	-80.433	8/21/2003	16:05	0.014	0.026	0.18	335	352	0.305
40	50	26.657	-80.433	8/21/2003	12:45	NSA	0.024	0.029	335	372	0.436
41	51	26.660	-80.433	8/21/2003	15:53	0.009	0.019	0.218	376	272	0.121
42	52	26.663	-80.433	8/21/2003	12:35	0.006	0.028	0.05	344	280	0.167
43	53	26.667	-80.433	8/21/2003	15:38	0.026	0.042	0.054	341	344	0.062
44	54	26.660	-80.433	8/21/2003	12:20	0.071	0.104	0.118	347	356	0.129
45	55	26.670	-80.433	8/21/2003	14:26	0.022	0.034	0.061	363	332	0.103
46	56	26.651	-80.431	8/21/2003	11:18	0.002	0.019	0.031	316	240	0.040
46	57	26.651	-80.431	8/21/2003	11:22	0.002	0.018	0.031	319	242	0.035
46	58	26.651	-80.431	8/21/2003	11:25	0.002	0.019	0.031	314	236	0.124
47	59	26.655	-80.431	8/21/2003	14:23	0.009	0.019	0.079	322	316	0.113
48	60	26.658	-80.431	8/21/2003	10:56	0.012	0.028	0.041	362	280	0.501
49	61	26.662	-80.431	8/21/2003	14:09	0.018	0.032	0.095	362	292	0.328
50	62	26.665	-80.431	8/21/2003	10:38	0.004	0.019	0.053	350	308	0.067
51	63	26.669	-80.431	8/21/2003	13:52	0.046	0.075	0.089	342	340	0.245
52	64	26.672	-80.431	8/21/2003	10:21	0.068	0.101	0.107	379	348	0.345

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
53	65	26.675	-80.431	8/21/2003	13:37	0.058	0.081	0.102	353	332	0.157
54	66	26.653	-80.429	8/21/2003	9:56	0.004	0.018	0.041	376	352	0.255
55	67	26.657	-80.429	8/21/2003	13:19	0.050	0.070	0.123	342	328	0.509
56	68	26.660	-80.429	8/21/2003	9:40	0.082	0.104	0.217	353	304	0.651
57	69	26.663	-80.429	8/21/2003	11:58	0.035	0.052	0.068	350	324	0.225
57	70	26.663	-80.429	8/21/2003	11:58	0.036	0.057	0.063	335	340	0.254
57	71	26.663	-80.429	8/21/2003	11:58	0.038	0.060	0.07	327	NSA	0.282
58	72	26.667	-80.429	8/21/2003	9:24	0.012	0.028	0.053	362	340	0.096
59	73	26.670	-80.429	8/21/2003	11:30	0.058	0.081	0.091	339	344	0.212
60	74	26.674	-80.429	8/21/2003	9:03	0.070	0.105	0.12	357	316	0.240
61	75	26.662	-80.427	8/21/2003	11:04	0.015	0.041	0.143	373	344	0.127
62	76	26.665	-80.427	8/21/2003	8:41	0.014	0.031	0.057	350	352	0.112
63	77	26.668	-80.427	8/21/2003	10:48	0.066	0.088	0.125	362	364	0.289
64	78	26.672	-80.427	8/21/2003	8:15	0.086	0.117	0.13	362	364	0.377
65	79	26.675	-80.427	8/21/2003	10:34	0.084	0.110	0.12	367	352	0.406
66		26.660	-80.425			ND	ND	ND	ND	ND	ND
67	1	26.663	-80.425	8/21/2003	10:04	0.009	0.026	0.047	330	320	0.110
68	2	26.667	-80.425	8/20/2003	17:40	0.006	0.021	0.032	333	308	0.069
69	33	26.670	-80.425	8/21/2003	9:54	0.009	0.110	0.13	347	352	0.406
70	34	26.674	-80.425	8/20/2003	17:25	0.076	0.105	0.141	364	368	0.477
71	32	26.662	-80.424	8/21/2003	9:43	0.009	0.084	0.094	356	328	0.435
72	33	26.665	-80.424	8/20/2003	17:15	0.022	0.044	0.099	460	344	0.157
73	34	26.668	-80.424	8/21/2003	9:04	0.030	0.050	0.079	284	368	0.162
74	35	26.672	-80.424	8/20/2003	17:00	0.071	0.099	0.193	367	352	0.272
75		26.675	-80.424			ND	ND	ND	ND	ND	ND
76	1	26.660	-80.422	8/20/2003	16:50	0.068	0.104	0.131	356	352	0.430
77	2	26.663	-80.422	8/20/2003	17:01	0.002	0.023	0.045	367	356	0.039
78	3	26.667	-80.422	8/20/2003	16:30	0.006	0.019	0.044	384	332	0.069
79	4	26.670	-80.422	8/20/2003	16:55	0.030	0.052	0.073	359	356	0.198
80	5	26.674	-80.422	8/20/2003	16:15	0.026	0.044	0.063	364	364	0.102
81	6	26.662	-80.420	8/20/2003	16:45	0.004	0.016	0.045	367	354	0.089
82	7	26.665	-80.420	8/20/2003	16:00	0.015	0.036	0.128	239	360	0.155

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
83	8	26.668	-80.420	8/20/2003	16:20	0.006	0.021	0.041	376	348	0.104
84	9	26.672	-80.420	8/20/2003	15:50	0.058	0.081	0.157	409	360	0.243
85	10	26.675	-80.420	8/20/2003	16:00	0.078	0.110	0.156	370	372	0.326
86	11	26.660	-80.418	8/20/2003	15:00	0.015	0.032	0.139	489	352	0.151
86	12	26.660	-80.418	8/20/2003	15:05	0.012	0.031	0.062	390	376	0.114
86	13	26.660	-80.418	8/20/2003	15:35	0.002	0.018	0.026	353	326	0.103
87	14	26.663	-80.418	8/20/2003	15:45	0.004	0.019	0.057	373	364	0.072
87	15	26.663	-80.418	8/20/2003	15:45	0.004	0.021	0.044	356	360	0.071
87	16	26.663	-80.418	8/20/2003	15:47	0.004	0.016	0.041	379	348	0.090
88	17	26.667	-80.418	8/20/2003	14:50	0.015	0.032	0.044	379	352	0.150
89	18	26.670	-80.418	8/20/2003	15:22	0.006	0.018	0.042	356	356	0.088
90	19	26.674	-80.418	8/20/2003	14:35	0.012	0.028	0.081	362	356	0.154
91	20	26.662	-80.416	8/20/2003	15:10	0.010	0.028	0.044	356	368	0.153
92	21	26.665	-80.416	8/20/2003	14:15	0.004	0.016	0.031	359	364	0.108
93	22	26.668	-80.416	8/20/2003	14:59	0.006	0.018	0.037	342	352	0.080
94	23	26.672	-80.416	8/20/2003	14:05	0.046	0.068	0.109	353	376	0.073
95	24	26.675	-80.416	8/20/2003	14:35	0.035	0.059	0.102	344	352	0.210
96	25	26.660	-80.414	8/20/2003	13:45	0.012	0.026	0.06	364	368	0.202
97	26	26.663	-80.414	8/20/2003	14:24	0.046	0.075	0.117	379	376	0.165
98	27	26.667	-80.414	8/20/2003	13:30	0.012	0.029	0.076	359	368	0.122
99	28	26.670	-80.414	8/20/2003	13:55	0.022	0.042	0.078	347	356	0.107
100	29	26.674	-80.414	8/20/2003	13:15	0.066	0.092	0.11	373	392	0.307
101	30	26.662	-80.412	8/20/2003	13:36	0.055	0.084	0.157	370	368	0.374
101	31	26.662	-80.412	8/20/2003	13:36	0.057	0.089	0.149	356	372	0.402
101	32	26.662	-80.412	8/20/2003	13:36	0.060	0.088	0.126	356	356	0.426
102	33	26.665	-80.412	8/20/2003	13:00	0.022	0.043	0.068	356	368	0.221
103	34	26.668	-80.412	8/20/2003	13:14	0.065	0.167	0.183	393	372	0.273
104	35	26.672	-80.412	8/20/2003	12:35	0.081	0.105	0.117	353	388	0.310
105	36	26.675	-80.412	8/20/2003	12:53	0.092	0.141	0.139	359	352	0.463
106	37	26.663	-80.410	8/20/2003	12:25	0.079	0.107	0.122	353	368	0.371
107	38	26.667	-80.410	8/20/2003	12:46	0.060	0.088	0.126	373	340	0.143
108	39	26.670	-80.410	8/20/2003	12:05	0.055	0.075	0.104	353	384	0.199

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
109	40	26.674	-80.410	8/20/2003	12:30	0.082	0.122	0.149	359	360	0.516
110	41	26.665	-80.408	8/20/2003	11:55	0.084	0.109	0.13	382	376	0.465
111	42	26.668	-80.408	8/20/2003	12:17	0.086	0.117	0.137	359	356	0.521
112	43	26.672	-80.408	8/20/2003	11:45	0.102	0.123	0.224	382	360	0.473
113	44	26.675	-80.408	8/20/2003	12:06	0.081	0.112	0.149	364	364	0.442
114	45	26.667	-80.406	8/20/2003	11:30	0.094	0.126	0.154	379	388	0.551
115	46	26.670	-80.406	8/20/2003	12:10	0.084	0.115	0.159	353	356	0.424
116	47	26.674	-80.406	8/20/2003	11:10	0.073	0.094	0.13	376	352	0.340
117	48	26.672	-80.404	8/20/2003	11:50	0.074	0.128	0.149	356	340	0.640
118	49	26.675	-80.404	8/20/2003	11:31	0.070	0.107	0.138	344	376	0.411
118	50	26.675	-80.404	8/20/2003	10:20	0.092	0.123	0.125	370	368	0.504
119	51	26.674	-80.402	8/20/2003	10:21	0.079	0.115	0.164	362	332	0.506
120	1	26.675	-80.401	8/20/2003	9:20	0.092	0.122	0.136	367	318	0.512
120	2	26.675	-80.401	8/20/2003	9:20	0.113	0.135	0.151	362	340	0.592
120	3	26.675	-80.401	8/20/2003	9:20	0.178	0.107	0.144	373	316	0.393
Field Blank 2		NA	NA	NA	NA	0.006	0.003	0.003	<25	4	<0.016
Field Blank 4		NA	NA	NA	NA	0.002	0.005	0.003	<25	4	
Field Blank 6		NA	NA	NA	NA	0.002	0.003	0.003	<25	4	<0.016
Field Blank 3		NA	NA	NA	NA	0.002	0.003	0.003	<25	4	no sample
Method						EPA 365.2	EPA 365.2	EPA 365.2	EPA 110.2	EPA 310.1	EPA 350.1
Detection Limit						0.002	0.003	0.003	25	3	0.016

NA = Not applicable

ND = no determined

BDL = below detection limit

NSA = no sample available

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	NO ₃ mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Secchi m	COD mg COD L ⁻¹
1	0.010	2.844	2.854	4.0	4.0	14.12	29.4	8.2	1.27	0.45	106.1
1	0.021	3.438	3.459	5.0	ND	11.09	28.9	8.1	1.28	0.42	161.3
1	0.010	2.844	2.854	2.0	ND	10.10	28.6	8.0	1.28	0.47	133.7
2	0.010	3.141	3.151	1.0	4.5	10.10	29.3	7.9	1.38	ND	103.0
3	0.055	2.844	2.899	0.0	ND	9.63	28.9	8.0	1.33	0.60	133.7
4	0.050	2.903	2.953	1.8	2.0	0.40	28.5	7.5	1.35	0.45	161.3
5	0.110	2.844	2.954	1.0	ND	4.08	29.2	7.7	1.34	0.75	130.6
6	0.362	3.171	3.532	0.0	ND	3.23	29.4	7.6	1.40	1.00	155.2
6	0.372	3.081	3.454	2.0	ND	3.12	29.4	7.6	1.40	1.00	158.3
6	0.383	3.200	3.584	1.5	1.0	3.14	29.4	7.6	1.40	1.00	161.3
7	0.372	3.081	3.454	1.0	ND	2.13	28.1	7.6	1.31	ND	142.9
8	0.176	3.171	3.346	1.0	BDL	6.77	28.0	7.8	1.37	0.60	167.5
9	0.006	3.141	3.147	11.5	5.0	11.40	29.1	8.0	1.37	0.55	170.6
10	0.044	2.903	2.948	4.5	1.0	3.99	29.0	7.7	1.25	0.49	161.3
11	0.066	3.230	3.296	1.8	BDL	2.09	27.5	7.6	1.13	0.75	161.3
12	0.143	2.874	3.016	1.0	ND	4.28	28.1	7.7	1.32	0.75	158.3
13	0.076	2.398	2.474	4.0	ND	5.61	27.6	7.8	1.21	0.45	158.3
13	0.103	2.814	2.917	2.0	ND	7.28	27.8	7.8	1.21	0.45	96.9
13	0.114	2.844	2.958	1.0	ND	4.79	27.2	7.7	1.21	0.45	84.6
14	0.427	3.141	3.568	3.0	ND	5.72	28.8	7.8	1.45	0.70	161.3
15	0.328	2.606	2.934	0.0	ND	13.27	28.4	7.8	1.29	0.35	155.2
16	0.034	2.844	2.877	1.0	ND	7.20	28.9	8.1	1.29	0.67	164.4
17	0.229	3.319	3.548	2.0	ND	4.31	28.3	7.7	1.31	0.23	158.3
18	0.017	2.844	2.861	8.0	ND	15.92	29.6	8.6	1.17	0.66	158.3
19	0.087	2.963	3.049	0.0	ND	5.20	28.7	7.8	1.24	0.86	133.7
20	0.198	2.814	3.012	3.5	BDL	5.29	28.9	7.9	1.32	ND	161.3
21	0.174	3.111	3.285	3.0	ND	9.57	28.9	8.0	1.26	0.30	146.0
22	0.148	3.200	3.349	1.5	BDL	10.29	30.9	8.5	1.30	0.60	161.3
23	0.103	3.141	3.244	2.0	ND	7.77	28.9	7.9	1.30	0.39	136.8
24	0.137	3.824	3.962	10.0	ND	4.82	29.1	7.8	1.37	0.70	164.4
25	0.054	3.408	3.462	19.5	12.0	2.20	28.5	7.7	1.24	0.35	133.7
26	0.214	3.076	3.290	6.0	ND	7.28	29.3	7.7	1.38	0.71	130.6

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	NO ₃ mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conducti vity mS cm ⁻³	Secchi depth m	COD mg COD L ⁻¹
26	0.219	3.260	3.479	1.0	ND	7.62	29.1	7.7	1.38	0.50	155.2
26	0.219	3.022	3.241	20.3	12.5	7.43	29.2	7.7	1.38	0.55	158.3
27	0.185	2.903	3.088	0.0	ND	5.22	28.0	7.7	1.24	0.85	124.5
28	0.066	2.841	2.907	1.0	ND	15.86	32.8	8.5	1.32	0.65	158.3
29	0.371	3.022	3.393	1.0	ND	3.40	28.4	7.5	1.29	0.35	161.3
30	0.230	3.076	3.307	3.0	ND	13.25	30.9	8.1	1.47	0.65	161.3
31	0.109	2.903	3.012	8.5	6.5	5.03	28.8	7.9	1.24	0.80	130.6
32	0.099	3.312	3.411	26.0	ND	3.17	29.2	7.7	1.43	0.79	158.3
33	0.185	3.141	3.326	7.0	ND	6.49	28.8	7.7	1.29	0.29	130.6
34	0.318	3.135	3.453	1.0	ND	4.08	29.1	7.5	1.15	0.83	133.7
35	0.120	3.081	3.201	10.0	2.0	10.10	28.4	7.9	1.20	0.55	195.1
35	0.098	2.903	3.001	3.0	ND	11.77	29.1	8.3	1.14	0.40	130.6
35	0.087	2.844	2.931	2.0	ND	13.00	29.3	8.4	1.14	0.35	130.6
36	0.176	3.076	3.252	4.0	5.5	2.61	28.2	7.6	1.36	1.00	161.3
37	0.098	2.755	2.852	23.2	27.0	14.89	29.7	8.3	1.26	0.45	133.7
38	0.044	3.135	3.180	6.0	4.0	9.13	29.9	8.0	1.46	1.01	161.3
39	0.121	3.022	3.143	21.0	ND	4.41	28.7	7.8	1.31	0.40	130.6
40	0.126	3.135	3.262	1.0	ND	3.01	28.5	7.7	1.15	0.83	158.3
41	0.023	2.933	2.956	17.0	ND	8.88	28.8	7.9	1.35	0.10	146.0
42	0.055	2.753	2.808	5.3	2.0	13.53	30.8	8.3	1.34	0.75	158.3
43	0.219	3.022	3.241	5.0	ND	5.93	28.6	7.6	1.27	0.75	130.6
44	0.405	3.135	3.541	4.8	2.0	5.90	28.8	7.8	1.45	1.02	164.4
45	0.154	3.171	3.324	1.0	ND	14.26	30.3	8.2	1.32	0.50	146.0
46	0.006	2.547	2.553	1.0	ND	10.95	27.9	8.9	1.05	0.50	158.3
46	0.006	2.723	2.730	1.0	ND	12.60	26.7	8.5	1.06	0.50	158.3
46	0.006	2.606	2.612	1.0	ND	13.45	27.5	8.7	1.06	0.50	158.3
47	0.055	2.933	2.988	1.7	BDL	2.65	26.8	7.6	1.21	0.75	146.0
48	0.023	3.312	3.334	1.0	ND	5.32	27.4	7.7	1.45	0.60	185.9
49	0.055	3.081	3.137	6.0	ND	2.53	27.3	7.3	1.26	0.20	130.6
50	0.066	3.135	3.202	12.0	6.0	4.63	27.3	7.7	1.26	0.70	164.4
51	0.192	3.022	3.214	5.0	ND	5.13	28.5	7.7	1.30	1.05	155.2
52	0.137	4.976	5.113	1.0	ND	3.01	27.4	7.6	1.40	0.75	115.3

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	NO ₃ mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conducti vity mS cm ⁻³	Secchi depth m	COD mg COD L ⁻¹
53	0.372	3.260	3.632	0.0	ND	7.30	29.0	7.6	1.31	0.49	158.3
54	0.012	NSA	ND	2.0	ND	8.61	27.3	7.9	1.39	0.65	158.3
55	0.088	3.260	3.348	0.0	ND	6.43	29.2	7.6	1.27	0.60	130.6
56	0.187	3.547	3.734	NSA	ND	1.46	26.9	7.4	1.28	0.85	133.7
57	0.223	3.081	3.304	29.8	34.0	3.51	27.4	7.6	1.25	0.30	139.8
57	0.228	3.616	3.845	9.0	ND	2.73	27.4	7.5	1.25	0.60	158.3
57	0.219	2.963	3.182	0.0	ND	4.14	27.4	7.5	1.25	0.55	124.5
58	0.170	2.988	3.158	5.0	BDL	1.23	26.9	7.6	1.30	0.70	127.6
59	0.489	3.379	3.868	5.7	BDL	4.86	27.4	7.6	1.13	0.90	133.7
60	0.569	3.282	3.852	2.5	BDL	1.46	26.9	7.4	1.26	0.75	127.6
61	0.081	3.081	3.163	8.0	5.0	8.33	26.9	7.8	1.29	0.25	164.4
62	0.187	3.076	3.263	24.8	34.0	1.30	26.8	7.5	1.34	0.70	158.3
63	0.285	3.200	3.485	4.7	1.0	12.98	27.0	7.6	1.32	0.10	161.3
64	0.198	3.371	3.568	32.0	ND	0.86	26.9	7.5	1.42	0.60	142.9
65	0.053	3.200	3.253	6.5	0.5	1.37	26.9	7.5	1.33	0.20	158.3
66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
67	0.132	3.081	3.214	5.0	ND	6.17	26.6	7.7	1.21	0.50	164.4
68	0.126	3.076	3.203	8.0	ND	3.09	27.4	7.7	1.26	1.05	164.4
69	0.580	3.735	4.315	7.0	ND	9.01	26.6	7.6	1.33	0.92	133.7
70	0.285	3.606	3.891	2.0	ND	3.46	27.7	7.6	1.44	ND	158.3
71	0.308	2.874	3.181	6.0	ND	7.80	26.3	7.5	1.23	0.90	133.7
72	0.263	3.135	3.398	43.0	ND	2.23	27.6	7.6	1.29	0.80	158.3
73	0.251	3.527	3.778	4.0	ND	3.71	26.7	7.6	1.29	0.99	146.0
74	0.515	3.665	4.179	2.0	ND	3.16	27.6	7.6	1.41	ND	162.9
75	ND	ND	ND	5.5	2.5	ND	ND	ND	ND	ND	ND
76	0.318	3.635	3.953	23.0	ND	1.75	27.4	7.5	1.34	0.60	158.3
77	0.019	3.141	3.160	33.3	49.5	5.54	27.2	7.7	1.26	0.30	164.4
78	0.154	2.782	2.936	2.5	BDL	1.29	27.5	7.6	1.28	0.95	158.3
79	0.092	3.171	3.263	3.3	1.5	4.06	27.4	7.6	1.28	0.90	127.6
80	0.526	3.312	3.837	61.0	ND	2.40	27.0	7.4	1.35	0.75	158.3
81	0.070	3.171	3.240	12.0	ND	5.48	27.2	7.8	1.28	0.40	158.3
82	0.137	3.018	3.155	8.0	ND	2.45	27.5	7.5	1.35	0.80	133.7

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	NO ₃ mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conducti vity mS cm ⁻³	Secchi depth m	COD mg COD L ⁻¹
83	0.104	3.022	3.126	33.8	35.5	2.87	27.3	7.5	1.26	0.90	133.7
84	0.376	2.784	3.160	2.5	BDL	2.57	27.2	7.6	1.38	0.75	130.6
85	0.421	3.379	3.800	4.2	2.0	4.29	27.4	7.5	1.37	0.05	164.4
86	0.126	3.379	3.505	33.0	ND	1.89	27.6	7.6	1.36	0.70	152.1
86	0.121	3.260	3.380	22.0	ND	1.82	27.6	7.6	1.35	0.65	146.0
86	0.019	NSA	NSA	6.0	ND	4.56	26.6	7.8	1.27	0.90	130.6
87	0.047	3.111	3.158	32.0	37.5	5.27	26.9	7.6	1.28	0.30	176.7
87	0.047	3.200	3.247	13.0	ND	5.74	27.1	7.5	1.28	0.30	133.7
87	0.047	3.081	3.128	17.0	ND	5.54	26.9	7.3	1.28	0.30	158.3
88	0.115	3.289	3.404	11.3	11.5	2.30	27.5	7.8	1.35	ND	146.0
89	0.228	3.141	3.369	14.0	7.5	5.59	27.1	7.6	1.27	0.25	133.7
90	0.007	3.230	3.237	28.0	ND	0.88	28.0	7.6	1.36	0.40	130.6
91	0.036	2.636	2.672	1.0	ND	3.52	27.0	7.5	1.35	0.30	133.7
92	0.064	3.230	3.294	43.5	1.0	2.32	27.4	7.6	1.35	0.60	133.7
93	0.092	3.022	3.114	25.9	18.8	7.81	27.1	7.6	1.26	0.30	142.9
94	0.421	3.616	4.037	2.0	ND	1.19	27.5	7.5	1.30	0.50	146.0
95	0.092	3.379	3.471	5.0	ND	1.08	27.5	7.4	1.28	0.40	158.3
96	0.007	3.200	3.208	2.0	ND	2.53	27.4	7.4	1.35	0.55	133.7
97	0.251	3.794	4.046	12.0	ND	3.20	26.8	7.4	1.35	0.55	133.7
98	0.138	3.141	3.279	5.3	0.5	1.01	27.5	7.4	1.31	0.65	146.0
99	0.223	3.141	3.364	4.0	1.0	5.74	27.2	7.4	1.28	0.75	158.3
100	0.228	3.379	3.607	3.3	0.5	2.35	27.6	7.7	1.31	0.70	130.6
101	0.172	3.379	3.550	13.0	ND	1.90	27.4	7.4	1.39	0.40	158.3
101	0.172	3.616	3.788	4.0	ND	1.07	27.0	7.4	1.40	0.40	127.6
101	0.172	4.181	4.352	8.0	ND	5.74	27.4	7.4	1.39	0.40	189.0
102	0.024	3.379	3.403	4.0	BDL	0.70	27.4	7.6	1.37	0.45	130.6
103	0.501	3.557	4.057	9.0	1.0	9.48	27.3	7.5	1.35	0.70	133.7
104	0.319	1.893	2.212	3.0	BDL	1.38	27.7	7.7	1.29	0.65	127.6
105	0.501	3.557	4.057	2.7	BDL	3.39	27.7	7.4	1.38	0.90	146.0
106	0.410	3.319	3.729	6.5	3.5	0.52	27.5	7.4	1.37	0.45	130.6
107	0.467	3.379	3.845	25.0	ND	6.09	27.6	7.4	1.35	0.40	130.6
108	0.228	3.141	3.369	6.5	2.0	2.30	27.4	7.6	1.33	0.45	146.0

Appendix 1.1 (Continued). Water column parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	NO ₃ mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Secchi m	COD mg COD L ⁻¹
109	0.546	3.408	3.954	12.0	ND	4.09	27.6	7.4	1.38	0.70	133.7
110	0.569	3.735	4.304	3.2	BDL	1.60	27.4	7.4	1.16	0.60	127.6
111	0.546	3.379	3.925	5.0	1.0	1.37	27.5	7.4	1.36	0.75	161.3
112	0.512	3.497	4.009	25.0	ND	1.54	27.4	7.5	1.44	ND	115.3
113	0.376	3.438	3.814	6.7	1.5	4.46	27.9	7.5	1.38	0.60	130.6
114	0.535	3.735	4.270	4.2	BDL	6.26	27.3	7.2	1.43	0.40	130.6
115	0.421	3.408	3.829	5.7	5.0	0.89	27.6	7.3	1.38	0.40	161.3
116	0.240	3.438	3.678	8.0	ND	0.23	26.8	7.6	1.44	0.48	141.4
117	0.682	3.438	4.120	1.5	BDL	1.00	27.2	7.3	1.33	0.70	115.3
118	0.211	3.319	3.531	10.0	ND	1.37	27.4	7.3	1.39	0.80	133.7
118	0.149	3.735	3.884	1.0	ND	1.09	27.1	7.3	1.48	0.70	130.6
119	0.716	3.586	4.303	1.0	0.5	2.95	27.6	7.4	1.35	0.45	130.6
120	0.807	3.557	4.364	10.0	ND	2.14	27.5	7.3	1.35	0.55	133.7
120	0.756	3.854	4.610	10.0	ND	0.41	27.5	7.2	1.41	0.50	133.7
120	0.801	3.022	3.823	10.0	ND	2.14	27.5	7.3	1.35	0.55	130.6
Field Blank	<0.008	0.408	0.408								
Field Blank	<0.008	0.259	0.259								
Field Blank	<0.008	0.230	0.230								
Field Blank	no sample	0.230	0.230								
Method	EPA 353.2	EPA 351.2	TKN + NO ₃ + NO ₂	Standard Methods 18th Ed. 2540-C	Standard Methods 18th Ed. 2540-E	EPA 360.1	EPA 170.1	EPA 150.2	EPA 120.1		Standard Methods 18th Ed. 5220 D
Detection L	0.008	0.1		0.001	0.001						

NA = Not applicable

ND = no determined

BDL = below detection limit

NSA = no sample available

Appendix 1.2. Field Measurements for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude	Longitude	Date	Time	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Depth m	Secchi m
1	1	26.651	-80.443	8/22/2003	13:40	14.12	29.4	8.2	1.27	0.65	0.45
1	2	26.651	-80.443	8/22/2003	13:40	11.09	28.9	8.1	1.28	0.65	0.42
1	3	26.651	-80.443	8/22/2003	13:40	10.10	28.6	8.0	1.28	0.65	0.47
2	4	26.655	-80.443	8/22/2003	13:10	10.10	29.3	7.9	1.38	0.70	ND
3	5	26.658	-80.443	8/22/2003	13:20	9.63	28.9	8.0	1.33	0.80	0.60
4	6	26.662	-80.443	8/22/2003	13:10	0.40	28.5	7.5	1.35	0.70	0.45
5	7	26.665	-80.443	8/22/2003	12:55	4.08	29.2	7.7	1.34	0.90	0.75
6	8	26.669	-80.443	8/22/2003	12:40	3.23	29.4	7.6	1.40	1.00	1.00
6	9	26.669	-80.443	8/22/2003	12:40	3.12	29.4	7.6	1.40	1.00	1.00
6	10	26.669	-80.443	8/22/2003	12:40	3.14	29.4	7.6	1.40	1.00	1.00
7	11	26.672	-80.443	8/22/2003	12:30	2.13	28.1	7.6	1.31	0.95	ND
8	12	26.675	-80.443	8/22/2003	12:15	6.77	28.0	7.8	1.37	0.90	0.60
9	13	26.653	-80.441	8/22/2003	11:55	11.40	29.1	8.0	1.37	0.70	0.55
10	14	26.657	-80.441	8/21/2003	18:10	3.99	29.0	7.7	1.25	0.49	0.49
11	15	26.660	-80.441	8/22/2003	10:35	2.09	27.5	7.6	1.13	0.70	0.75
12	16	26.663	-80.441	8/21/2003	17:55	4.28	28.1	7.7	1.32	0.83	0.75
13	17	26.667	-80.441	8/21/2003	18:46	5.61	27.6	7.8	1.21	0.92	0.45
13	18	26.667	-80.441	8/21/2003	18:46	7.28	27.8	7.8	1.21	0.92	0.45
13	19	26.667	-80.441	8/21/2003	18:46	4.79	27.2	7.7	1.21	0.92	0.45
14	20	26.670	-80.441	8/21/2003	16:40	5.72	28.8	7.8	1.45	0.96	0.70
15	21	26.674	-80.441	8/21/2003	18:37	13.27	28.4	7.8	1.29	0.95	0.35
16	22	26.651	-80.439	8/21/2003	16:20	7.20	28.9	8.1	1.29	0.67	0.67
17	23	26.655	-80.439	8/21/2003	18:26	4.31	28.3	7.7	1.31	0.76	0.23
18	24	26.658	-80.439	8/21/2003	15:55	15.92	29.6	8.6	1.17	0.66	0.66
19	25	26.662	-80.439	8/21/2003	17:56	5.20	28.7	7.8	1.24	0.86	0.86
20	26	26.665	-80.439	8/21/2003	15:40	5.29	28.9	7.9	1.32	0.89	ND
21	27	26.669	-80.439	8/21/2003	17:48	9.57	28.9	8.0	1.26	0.97	0.30
22	28	26.672	-80.439	8/21/2003	15:20	10.29	30.9	8.5	1.30	0.95	0.60
23	29	26.675	-80.439	8/21/2003	17:37	7.77	28.9	7.9	1.30	0.87	0.39
24	30	26.653	-80.437	8/21/2003	15:05	4.82	29.1	7.8	1.37	0.73	0.70

Appendix 1.2 (Continued). Field Measurements for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude	Longitude	Date	Time	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Depth m	Secchi m
25	31	26.657	-80.437	8/21/2003	17:25	2.20	28.5	7.7	1.24	0.70	0.35
26	32	26.660	-80.437	8/21/2003	14:30	7.28	29.3	7.7	1.38	0.71	0.71
26	33	26.660	-80.437	8/21/2003	14:30	7.62	29.1	7.7	1.38	0.70	0.50
26	34	26.660	-80.437	8/21/2003	14:30	7.43	29.2	7.7	1.38	0.67	0.55
27	35	26.663	-80.437	8/21/2003	17:15	5.22	28.0	7.7	1.24	0.85	0.85
28	36	26.667	-80.437	8/21/2003	14:20	15.86	32.8	8.5	1.32	0.85	0.65
29	37	26.670	-80.437	8/21/2003	17:09	3.40	28.4	7.5	1.29	0.95	0.35
30	38	26.674	-80.437	8/21/2003	14:05	13.25	30.9	8.1	1.47	0.92	0.65
31	39	26.651	-80.435	8/21/2003	16:58	5.03	28.8	7.9	1.24	0.80	0.80
32	40	26.655	-80.435	8/21/2003	13:45	3.17	29.2	7.7	1.43	0.79	0.79
33	41	26.658	-80.435	8/21/2003	16:41	6.49	28.8	7.7	1.29	0.75	0.29
34	42	26.662	-80.435	8/21/2003	13:35	4.08	29.1	7.5	1.15	0.83	0.83
35	43	26.665	-80.435	8/21/2003	16:24	10.10	28.4	7.9	1.20	0.97	0.55
35	44	26.665	-80.435	8/21/2003	16:25	11.77	29.1	8.3	1.14	0.83	0.40
35	45	26.665	-80.435	8/21/2003	16:26	13.00	29.3	8.4	1.14	0.85	0.35
36	46	26.669	-80.435	8/21/2003	13:20	2.61	28.2	7.6	1.36	1.00	1.00
37	47	26.672	-80.435	8/21/2003	16:14	14.89	29.7	8.3	1.26	0.95	0.45
38	48	26.675	-80.435	8/21/2003	13:00	9.13	29.9	8.0	1.46	1.01	1.01
39	49	26.653	-80.433	8/21/2003	16:05	4.41	28.7	7.8	1.31	0.80	0.40
40	50	26.657	-80.433	8/21/2003	12:45	3.01	28.5	7.7	1.15	0.83	0.83
41	51	26.660	-80.433	8/21/2003	15:53	8.88	28.8	7.9	1.35	0.85	0.10
42	52	26.663	-80.433	8/21/2003	12:35	13.53	30.8	8.3	1.34	0.72	0.75
43	53	26.667	-80.433	8/21/2003	15:38	5.93	28.6	7.6	1.27	1.03	0.75
44	54	26.660	-80.433	8/21/2003	12:20	5.90	28.8	7.8	1.45	1.02	1.02
45	55	26.670	-80.433	8/21/2003	14:26	14.26	30.3	8.2	1.32	0.93	0.50
46	56	26.651	-80.431	8/21/2003	11:18	10.95	27.9	8.9	1.05	0.73	0.50
46	57	26.651	-80.431	8/21/2003	11:22	12.60	26.7	8.5	1.06	0.73	0.50
46	58	26.651	-80.431	8/21/2003	11:25	13.45	27.5	8.7	1.06	0.70	0.50
47	59	26.655	-80.431	8/21/2003	14:23	2.65	26.8	7.6	1.21	0.75	0.75
48	60	26.658	-80.431	8/21/2003	10:56	5.32	27.4	7.7	1.45	0.82	0.60
49	61	26.662	-80.431	8/21/2003	14:09	2.53	27.3	7.3	1.26	0.85	0.20
50	62	26.665	-80.431	8/21/2003	10:38	4.63	27.3	7.7	1.26	0.98	0.70

Appendix 1.2 (Continued). Field Measurements for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude	Longitude	Date	Time	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Depth m	Secchi m
51	63	26.669	-80.431	8/21/2003	13:52	5.13	28.5	7.7	1.30	1.05	1.05
52	64	26.672	-80.431	8/21/2003	10:21	3.01	27.4	7.6	1.40	0.98	0.75
53	65	26.675	-80.431	8/21/2003	13:37	7.30	29.0	7.6	1.31	0.94	0.49
54	66	26.653	-80.429	8/21/2003	9:56	8.61	27.3	7.9	1.39	0.71	0.65
55	67	26.657	-80.429	8/21/2003	13:19	6.43	29.2	7.6	1.27	0.94	0.60
56	68	26.660	-80.429	8/21/2003	9:40	1.46	26.9	7.4	1.28	0.85	0.85
57	69	26.663	-80.429	8/21/2003	11:58	3.51	27.4	7.6	1.25	0.85	0.30
57	70	26.663	-80.429	8/21/2003	11:58	2.73	27.4	7.5	1.25	0.83	0.60
57	71	26.663	-80.429	8/21/2003	11:58	4.14	27.4	7.5	1.25	0.81	0.55
58	72	26.667	-80.429	8/21/2003	9:24	1.23	26.9	7.6	1.30	0.95	0.70
59	73	26.670	-80.429	8/21/2003	11:30	4.86	27.4	7.6	1.13	1.05	0.90
60	74	26.674	-80.429	8/21/2003	9:03	1.46	26.9	7.4	1.26	0.95	0.75
61	75	26.662	-80.427	8/21/2003	11:04	8.33	26.9	7.8	1.29	1.00	0.25
62	76	26.665	-80.427	8/21/2003	8:41	1.30	26.8	7.5	1.34	1.02	0.70
63	77	26.668	-80.427	8/21/2003	10:48	12.98	27.0	7.6	1.32	1.00	0.10
64	78	26.672	-80.427	8/21/2003	8:15	0.86	26.9	7.5	1.42	0.60	0.60
65	79	26.675	-80.427	8/21/2003	10:34	1.37	26.9	7.5	1.33	0.68	0.20
66		26.660	-80.425			ND	ND	ND	ND	ND	ND
67	1	26.663	-80.425	8/21/2003	10:04	6.17	26.6	7.7	1.21	0.99	0.50
68	2	26.667	-80.425	8/20/2003	17:40	3.09	27.4	7.7	1.26	1.05	1.05
69	33	26.670	-80.425	8/21/2003	9:54	9.01	26.6	7.6	1.33	0.92	0.92
70	34	26.674	-80.425	8/20/2003	17:25	3.46	27.7	7.6	1.44	1.20	ND
71	32	26.662	-80.424	8/21/2003	9:43	7.80	26.3	7.5	1.23	0.90	0.90
72	33	26.665	-80.424	8/20/2003	17:15	2.23	27.6	7.6	1.29	1.10	0.80
73	34	26.668	-80.424	8/21/2003	9:04	3.71	26.7	7.6	1.29	0.99	0.99
74	35	26.672	-80.424	8/20/2003	17:00	3.16	27.6	7.6	1.41	1.10	ND
75		26.675	-80.424			ND	ND	ND	ND	ND	ND
76	1	26.660	-80.422	8/20/2003	16:50	1.75	27.4	7.5	1.34	0.95	0.60
77	2	26.663	-80.422	8/20/2003	17:01	5.54	27.2	7.7	1.26	0.95	0.30
78	3	26.667	-80.422	8/20/2003	16:30	1.29	27.5	7.6	1.28	0.95	0.95
79	4	26.670	-80.422	8/20/2003	16:55	4.06	27.4	7.6	1.28	1.15	0.90

Appendix 1.2 (Continued). Field Measurements for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude	Longitude	Date	Time	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Depth m	Secchi m
80	5	26.674	-80.422	8/20/2003	16:15	2.40	27.0	7.4	1.35	1.15	0.75
81	6	26.662	-80.420	8/20/2003	16:45	5.48	27.2	7.8	1.28	0.85	0.40
82	7	26.665	-80.420	8/20/2003	16:00	2.45	27.5	7.5	1.35	1.00	0.80
83	8	26.668	-80.420	8/20/2003	16:20	2.87	27.3	7.5	1.26	1.00	0.90
84	9	26.672	-80.420	8/20/2003	15:50	2.57	27.2	7.6	1.38	0.75	0.75
85	10	26.675	-80.420	8/20/2003	16:00	4.29	27.4	7.5	1.37	1.05	0.05
86	11	26.660	-80.418	8/20/2003	15:00	1.89	27.6	7.6	1.36	1.05	0.70
86	12	26.660	-80.418	8/20/2003	15:05	1.82	27.6	7.6	1.35	1.05	0.65
86	13	26.660	-80.418	8/20/2003	15:35	4.56	26.6	7.8	1.27	0.90	0.90
87	14	26.663	-80.418	8/20/2003	15:45	5.27	26.9	7.6	1.28	0.85	0.30
87	15	26.663	-80.418	8/20/2003	15:45	5.74	27.1	7.5	1.28	0.85	0.30
87	16	26.663	-80.418	8/20/2003	15:47	5.54	26.9	7.3	1.28	0.85	0.30
88	17	26.667	-80.418	8/20/2003	14:50	2.30	27.5	7.8	1.35	1.05	ND
89	18	26.670	-80.418	8/20/2003	15:22	5.59	27.1	7.6	1.27	0.90	0.25
90	19	26.674	-80.418	8/20/2003	14:35	0.88	28.0	7.6	1.36	1.20	0.40
91	20	26.662	-80.416	8/20/2003	15:10	3.52	27.0	7.5	1.35	0.87	0.30
92	21	26.665	-80.416	8/20/2003	14:15	2.32	27.4	7.6	1.35	1.00	0.60
93	22	26.668	-80.416	8/20/2003	14:59	7.81	27.1	7.6	1.26	0.93	0.30
94	23	26.672	-80.416	8/20/2003	14:05	1.19	27.5	7.5	1.30	1.05	0.50
95	24	26.675	-80.416	8/20/2003	14:35	1.08	27.5	7.4	1.28	1.05	0.40
96	25	26.660	-80.414	8/20/2003	13:45	2.53	27.4	7.4	1.35	0.90	0.55
97	26	26.663	-80.414	8/20/2003	14:24	3.20	26.8	7.4	1.35	0.85	0.55
98	27	26.667	-80.414	8/20/2003	13:30	1.01	27.5	7.4	1.31	1.00	0.65
99	28	26.670	-80.414	8/20/2003	13:55	5.74	27.2	7.4	1.28	1.00	0.75
100	29	26.674	-80.414	8/20/2003	13:15	2.35	27.6	7.7	1.31	1.10	0.70
101	30	26.662	-80.412	8/20/2003	13:36	1.90	27.4	7.4	1.39	0.80	0.40
101	31	26.662	-80.412	8/20/2003	13:36	1.07	27.0	7.4	1.40	0.80	0.40
101	32	26.662	-80.412	8/20/2003	13:36	5.74	27.4	7.4	1.39	0.80	0.40
102	33	26.665	-80.412	8/20/2003	13:00	0.70	27.4	7.6	1.37	1.00	0.45
103	34	26.668	-80.412	8/20/2003	13:14	9.48	27.3	7.5	1.35	0.95	0.70

Appendix 1.2 (Continued). Field Measurements for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude	Longitude	Date	Time	DO mg L ⁻¹	Temp °C	pH	Conduc mS cm ⁻³	Depth m	Secchi m
104	35	26.672	-80.412	8/20/2003	12:35	1.38	27.7	7.7	1.29	0.80	0.65
105	36	26.675	-80.412	8/20/2003	12:53	3.39	27.7	7.4	1.38	0.95	0.90
106	37	26.663	-80.410	8/20/2003	12:25	0.52	27.5	7.4	1.37	0.80	0.45
107	38	26.667	-80.410	8/20/2003	12:46	6.09	27.6	7.4	1.35	0.85	0.40
108	39	26.670	-80.410	8/20/2003	12:05	2.30	27.4	7.6	1.33	0.90	0.45
109	40	26.674	-80.410	8/20/2003	12:30	4.09	27.6	7.4	1.38	0.90	0.70
110	41	26.665	-80.408	8/20/2003	11:55	1.60	27.4	7.4	1.16	1.00	0.60
111	42	26.668	-80.408	8/20/2003	12:17	1.37	27.5	7.4	1.36	0.93	0.75
112	43	26.672	-80.408	8/20/2003	11:45	1.54	27.4	7.5	1.44	0.95	ND
113	44	26.675	-80.408	8/20/2003	12:06	4.46	27.9	7.5	1.38	0.88	0.60
114	45	26.667	-80.406	8/20/2003	11:30	6.26	27.3	7.2	1.43	0.85	0.40
115	46	26.670	-80.406	8/20/2003	12:10	0.89	27.6	7.3	1.38	0.85	0.40
116	47	26.674	-80.406	8/20/2003	11:10	0.23	26.8	7.6	1.44	0.85	0.48
117	48	26.672	-80.404	8/20/2003	11:50	1.00	27.2	7.3	1.33	0.90	0.70
118	49	26.675	-80.404	8/20/2003	11:31	1.37	27.4	7.3	1.39	0.80	0.80
118	50	26.675	-80.404	8/20/2003	10:20	1.09	27.1	7.3	1.48	0.85	0.70
119	51	26.674	-80.402	8/20/2003	10:21	2.95	27.6	7.4	1.35	0.75	0.45
120	1	26.675	-80.401	8/20/2003	9:20	2.14	27.5	7.3	1.35	0.85	0.55
120	2	26.675	-80.401	8/20/2003	9:20	0.41	27.5	7.2	1.41	0.85	0.50
120	3	26.675	-80.401	8/20/2003	9:20	2.14	27.5	7.3	1.35	0.85	0.55
Method						EPA 360.1	EPA 170.1	EPA 150.2	EPA 120.1		
Detection Limit											

ND = no determined

BDL = below detection limit

NSA = no sample available

Appendix 1.3. Vegetation parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude UTM	Longitude UTM	Sample Date	Time	Wet weight kg m ⁻²	Dry weight kg m ⁻²	% Veg. Cov.	Veg. Type
1	1	26.651	-80.443	8/22/2003	13:40	15.600	1.262	100	H
1	2	26.651	-80.443	8/22/2003	13:40	19.600	1.568	100	H
1	3	26.651	-80.443	8/22/2003	13:40	15.600	1.288	100	H
2	4	26.655	-80.443	8/22/2003	13:10	12.000	0.525	100	H
3	5	26.658	-80.443	8/22/2003	13:20	11.200	0.193	100	H
4	6	26.662	-80.443	8/22/2003	13:10	15.600	0.223	100	H, P
5	7	26.665	-80.443	8/22/2003	12:55	15.200	0.442	100	H
6	8	26.669	-80.443	8/22/2003	12:40	0.000	0.000	0	no vegetation
6	9	26.669	-80.443	8/22/2003	12:40	0.000	0.000	0	no vegetation
6	10	26.669	-80.443	8/22/2003	12:40	0.000	0.000	0	no vegetation
7	11	26.672	-80.443	8/22/2003	12:30	22.000	0.791	100	N, H
8	12	26.675	-80.443	8/22/2003	12:15	8.000	0.068	90	N
9	13	26.653	-80.441	8/22/2003	11:55	10.000	0.788	100	H
10	14	26.657	-80.441	8/21/2003	18:10	0.000	0.000	0	no vegetation
11	15	26.66	-80.441	8/22/2003	10:35	15.800	ND	100	H
12	16	26.663	-80.441	8/21/2003	17:55	0.090	0.004	10	H, C, WH
13	17	26.667	-80.441	8/21/2003	18:46	7.180	0.695	100	H
13	18	26.667	-80.441	8/21/2003	18:46	7.800	0.675	100	H
13	19	26.667	-80.441	8/21/2003	18:46	5.612	0.339	100	H
14	20	26.67	-80.441	8/21/2003	16:40	0.549	0.031	30	WH
15	21	26.674	-80.441	8/21/2003	18:37	11.68	ND	85	H, P
16	22	26.651	-80.439	8/21/2003	16:20	0.788	0.035	30	H, N
17	23	26.655	-80.439	8/21/2003	18:26	24.364	ND	100	H
18	24	26.658	-80.439	8/21/2003	15:55	12.400	0.705	100	H, WH
19	25	26.662	-80.439	8/21/2003	17:56	0.07376	BDL	0	H
20	26	26.665	-80.439	8/21/2003	15:40	0.710	0.031	30	H, C
21	27	26.669	-80.439	8/21/2003	17:48	2.000	ND	95	H, WC
22	28	26.672	-80.439	8/21/2003	15:20	8.000	0.399	100	H
23	29	26.675	-80.439	8/21/2003	17:37	6.800	ND	100	H
24	30	26.653	-80.437	8/21/2003	15:05	0.443	0.016	30	H
25	31	26.657	-80.437	8/21/2003	17:25	ND	ND	90	WH, DW, WL
26	32	26.66	-80.437	8/21/2003	14:30	8.800	0.618	100	H, CT
26	33	26.66	-80.437	8/21/2003	14:30	18.000	0.909	100	H, CT
26	34	26.66	-80.437	8/21/2003	14:30	11.200	0.636	100	H, CT
27	35	26.663	-80.437	8/21/2003	17:15	ND	ND	0	no vegetation
28	36	26.667	-80.437	8/21/2003	14:20	15.200	ND	100	H
29	37	26.67	-80.437	8/21/2003	17:09	13.200	1.211	100	H, WH
30	38	26.674	-80.437	8/21/2003	14:05	9.200	0.551	100	H, WH
31	39	26.651	-80.435	8/21/2003	16:58	0.090	BDL	15	WH, H
32	40	26.655	-80.435	8/21/2003	13:45	0.232	0.002	30	H
33	41	26.658	-80.435	8/21/2003	16:41	12.800	0.710	100	H, WH
34	42	26.662	-80.435	8/21/2003	13:35	0.000	0.000	0	no vegetation
35	43	26.665	-80.435	8/21/2003	16:24	5.600	0.210	95	H, WH
35	44	26.665	-80.435	8/21/2003	16:25	5.600	0.476	95	H, WH
35	45	26.665	-80.435	8/21/2003	16:26	10.000	0.654	95	H, WH
36	46	26.669	-80.435	8/21/2003	13:20	14.000	0.639	100	H, C, FB
37	47	26.672	-80.435	8/21/2003	16:14	5.200	0.430	85	H
38	48	26.675	-80.435	8/21/2003	13:00	13.200	0.672	100	N, H, C
39	49	26.653	-80.433	8/21/2003	16:05	0.095	BDL	50	H, WH, DW

Appendix 1.3 (Continued). Vegetation parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude UTM	Longitude UTM	Sample Date	Time	Wet weight kg m ⁻²	Dry weight kg m ⁻²	% Veg. Cov.	Veg. Type
40	50	26.657	-80.433	8/21/2003	12:45	0.000	0.000	0	no vegetation
41	51	26.66	-80.433	8/21/2003	15:53	17.600	ND	100	H, WH
42	52	26.663	-80.433	8/21/2003	12:35	14.800	0.963	100	H, S
43	53	26.667	-80.433	8/21/2003	15:38	2.400	ND	85	H, P, WH
44	54	26.66	-80.433	8/21/2003	12:20	2.400	0.156	80	H, C
45	55	26.67	-80.433	8/21/2003	14:26	1.371	0.131	100	H
46	56	26.651	-80.431	8/21/2003	11:18	18.800	1.004	100	H, N
46	57	26.651	-80.431	8/21/2003	11:22	18.800	1.051	100	H, N
46	58	26.651	-80.431	8/21/2003	11:25	20.000	ND	100	H, N
47	59	26.655	-80.431	8/21/2003	14:23	4.896	ND	50	H, DW
48	60	26.658	-80.431	8/21/2003	10:56	10.800	0.744	100	H
49	61	26.662	-80.431	8/21/2003	14:09	3.145	0.282	85	H, P
50	62	26.665	-80.431	8/21/2003	10:38	11.600	0.584	100	H
51	63	26.669	-80.431	8/21/2003	13:52	1.177	0.038	70	H, P
52	64	26.672	-80.431	8/21/2003	10:21	12.000	0.654	100	H
53	65	26.675	-80.431	8/21/2003	13:37	ND	ND	95	H
54	66	26.653	-80.429	8/21/2003	9:56	14.800	0.988	100	H
55	67	26.657	-80.429	8/21/2003	13:19	0.052	0.003	90	H, DW, R
56	68	26.66	-80.429	8/21/2003	9:40	6.400	ND	100	H
57	69	26.663	-80.429	8/21/2003	11:58	1.267	0.095	100	H, DW, WH
57	70	26.663	-80.429	8/21/2003	11:58	1.318	0.087	100	H, DW, WH
57	71	26.663	-80.429	8/21/2003	11:58	5.524	0.170	100	H, DW, WH
58	72	26.667	-80.429	8/21/2003	9:24	9.600	0.556	100	H
59	73	26.67	-80.429	8/21/2003	11:30	0.600	ND	85	H
60	74	26.674	-80.429	8/21/2003	9:03	ND	ND	100	H
61	75	26.662	-80.427	8/21/2003	11:04	0.631	0.038	95	H, WH
62	76	26.665	-80.427	8/21/2003	8:41	8.800	0.437	100	H
63	77	26.668	-80.427	8/21/2003	10:48	0.000	0.000	0	no vegetation
64	78	26.672	-80.427	8/21/2003	8:15	8.000	NDA	100	H
65	79	26.675	-80.427	8/21/2003	10:34	0.000	0.000	0	no vegetation
66		26.660	-80.425			ND	ND	ND	ND
67	1	26.663	-80.425	8/21/2003	10:04	ND	ND	80	H, WL, P
68	2	26.667	-80.425	8/20/2003	17:40	8.800	0.449	100	H
69	33	26.67	-80.425	8/21/2003	9:54	0.068	ND	5	H
70	34	26.674	-80.425	8/20/2003	17:25	0.000	0.000	0	no vegetation
71	32	26.662	-80.424	8/21/2003	9:43	0.248	ND	90	H, WL, P
72	33	26.665	-80.424	8/20/2003	17:15	0.000	0.000	0	no vegetation
73	34	26.668	-80.424	8/21/2003	9:04	ND	ND	85	H
74	35	26.672	-80.424	8/20/2003	17:00	0.170	0.005	30	H, N
75		26.675	-80.424			ND	ND	ND	ND
76	1	26.66	-80.422	8/20/2003	16:50	0.000	0.000	0	no vegetation
77	2	26.663	-80.422	8/20/2003	17:01	4.072	0.231	100	H
78	3	26.667	-80.422	8/20/2003	16:30	8.800	0.365	100	H
79	4	26.67	-80.422	8/20/2003	16:55	0.000	0.000	0	no vegetation

Appendix 1.3 (Continued). Vegetation parameters for the sampling on August'03 in STA-1W Cell 5B.

Station	Field ID	Latitude UTM	Longitude UTM	Sample Date	Time	Wet weight kg m ⁻²	Dry weight kg m ⁻²	% Veg. Cov.	Veg. Type
80	5	26.674	-80.422	8/20/2003	16:15	3.200	0.160	100	H, C
81	6	26.662	-80.42	8/20/2003	16:45	4.072	ND	100	H
82	7	26.665	-80.42	8/20/2003	16:00	0.000	0.000	0	no vegetation
83	8	26.668	-80.42	8/20/2003	16:20	0.000	0.000	0	no vegetation
84	9	26.672	-80.42	8/20/2003	15:50	0.000	0.000	0	no vegetation
85	10	26.675	-80.42	8/20/2003	16:00	3.848	0.174	20	H
86	11	26.66	-80.418	8/20/2003	15:00	1.600	0.110	80	H
86	12	26.66	-80.418	8/20/2003	15:05	7.600	0.442	100	H
86	13	26.66	-80.418	8/20/2003	15:35	ND	ND		H
87	14	26.663	-80.418	8/20/2003	15:45	2.708	0.165	20	H
87	15	26.663	-80.418	8/20/2003	15:45	3.848	0.181	20	H
87	16	26.663	-80.418	8/20/2003	15:47	3.624	0.205	20	H
88	17	26.667	-80.418	8/20/2003	14:50	1.298	0.071	50	H
89	18	26.67	-80.418	8/20/2003	15:22	4.632	0.283	100	H
90	19	26.674	-80.418	8/20/2003	14:35	10.400	ND	100	H
91	20	26.662	-80.416	8/20/2003	15:10	3.736	ND	30	H
92	21	26.665	-80.416	8/20/2003	14:15	7.600	0.378	100	H
93	22	26.668	-80.416	8/20/2003	14:59	3.624	0.214	30	H, C
94	23	26.672	-80.416	8/20/2003	14:05	8.000	ND	100	H
95	24	26.675	-80.416	8/20/2003	14:35	3.624	NDA	20	H, lots of P
96	25	26.66	-80.414	8/20/2003	13:45	12.800	0.385	100	H
97	26	26.663	-80.414	8/20/2003	14:24	3.624	0.184	30	H
98	27	26.667	-80.414	8/20/2003	13:30	12.000	ND	100	H
99	28	26.67	-80.414	8/20/2003	13:55	5.996	ND	20	H, P
100	29	26.674	-80.414	8/20/2003	13:15	0.244	0.007	20	H
101	30	26.662	-80.412	8/20/2003	13:36	8.704	0.450	100	H, WL, DW
101	31	26.662	-80.412	8/20/2003	13:36	8.704	0.492	100	H, WL, DW
101	32	26.662	-80.412	8/20/2003	13:36	12.216	0.626	100	H, WL, DW
102	33	26.665	-80.412	8/20/2003	13:00	10.800	ND	100	H
103	34	26.668	-80.412	8/20/2003	13:14	32.616	ND	5	H
104	35	26.672	-80.412	8/20/2003	12:35	0.000	0.000	0	no vegetation
105	36	26.675	-80.412	8/20/2003	12:53	0.784	0.033	100	H
106	37	26.663	-80.41	8/20/2003	12:25	1.600	ND	100	H
107	38	26.667	-80.41	8/20/2003	12:46	9.284	0.482	100	H
108	39	26.67	-80.41	8/20/2003	12:05	8.000	0.318	100	H
109	40	26.674	-80.41	8/20/2003	12:30	2.036	0.086	75	H
110	41	26.665	-80.408	8/20/2003	11:55	0.000	0.000	0	no vegetation
111	42	26.668	-80.408	8/20/2003	12:17	0.000	0.000	0	no vegetation
112	43	26.672	-80.408	8/20/2003	11:45	1.200	0.065	100	H
113	44	26.675	-80.408	8/20/2003	12:06	0.000	0.000	20	H
114	45	26.667	-80.406	8/20/2003	11:30	11.200	ND	100	H
115	46	26.67	-80.406	8/20/2003	12:10	2.932	0.167	85	H
116	47	26.674	-80.406	8/20/2003	11:10	11.200	0.537	100	H, N
117	48	26.672	-80.404	8/20/2003	11:50	0.000	0.000	0	no vegetation
118	49	26.675	-80.404	8/20/2003	11:31	3.624	ND	85	H, WL
118	50	26.675	-80.404	8/20/2003	10:20	8.800	ND	100	H
119	51	26.674	-80.402	8/20/2003	10:21	10.872	ND	100	H, WL
120	1	26.675	-80.401	8/20/2003	9:20	5.660	0.429	90	H
120	2	26.675	-80.401	8/20/2003	9:20	8.000	ND	90	H
120	3	26.675	-80.401	8/20/2003	9:20	6.800	ND	90	H

ND = no determined

BDL = below detection limit

NSA = no sample available

Appendix 2.1. Water column Parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	NH4 mg N L ⁻¹	NO3 mg N L ⁻¹
6	226	26.6690	-80.4430	9/26/2003	0.003	0.021	0.084	347	226	0.141	0.013
13	22 B	26.6670	-80.4410	9/26/2003	0.003	0.016	0.051	249	200	0.203	0.025
14	225	26.6700	-80.4410	9/26/2003	0.003	0.02	0.089	302	224	0.089	0.008
21	224	26.6690	-80.4390	9/26/2003	0.003	0.014	0.07	255	144	0.261	0.019
22	210	26.6720	-80.4390	9/25/2003	0.003	0.012	0.031	282	168	0.114	0.019
27	227	26.6630	-80.4370	9/26/2003	0.003	0.023	0.137	366	240	0.19	0.013
37	207	26.6720	-80.4350	9/25/2003	0.005	0.017	0.054	311	176	0.184	0.008
37	208	26.6720	-80.4350	9/25/2003	0.007	0.017	0.055	285	184	0.177	0.008
37	209	26.6720	-80.4350	9/25/2003	0.005	0.016	0.037	271	164	0.099	0.008
38	206	26.6750	-80.4350	9/25/2003	0.003	0.016	0.039	265	128	0.113	0.008
65	21 B	26.6750	-80.4270	9/26/2003	0.041	0.078	0.128	280	284	0.232	0.008
84	222	26.6720	-80.4200	9/26/2003	0.012	0.031	0.155	280	228	0.114	0.008
89	221	26.6700	-80.4180	9/26/2003	0.01	0.026	0.066	258	196	0.261	0.008
104	213	26.6720	-80.4120	9/25/2003	0.01	0.03	0.111	299	272	0.099	0.008
108	219	26.6700	-80.4100	9/26/2003	0.005	0.022	0.066	261	216	0.177	0.008
109	216	26.6740	-80.4100	9/26/2003	0.007	0.027	0.101	274	248	0.119	0.008
109	217	26.6740	-80.4100	9/26/2003	0.007	0.025	0.093	288	244	0.131	0.008
109	218	26.6740	-80.4100	9/26/2003	0.01	0.03	0.093	280	248	0.192	0.008
111	211	26.6680	-80.4080	9/25/2003	0.018	0.043	0.143	297	316	0.11	0.013
112	214	26.6720	-80.4080	9/25/2003	0.007	0.027	0.089	357	248	0.112	0.013
113	215	26.6750	-80.4080	9/26/2003	0.017	0.035	0.122	288	288	0.079	0.008
117	212	26.6720	-80.4040	9/25/2003	0.031	0.062	0.236	351	360	0.131	0.008
121	201	26.6704	-80.4439	9/25/2003	0.012	0.031	0.063	28	208	0.16	0.008
122	202	26.6717	-80.4437	9/25/2003	0.008	0.031	0.087	302	216	0.117	0.008
122	203	26.6717	-80.4437	9/25/2003	0.008	0.03	0.071	297	208	0.124	0.008
122	204	26.6717	-80.4437	9/25/2003	0.01	0.03	0.078	302	212	0.093	0.008
123	205	26.6687	-80.4440	9/25/2003	0.054	0.078	0.16	314	240	0.221	0.008
124	220	26.6698	-80.4115	9/26/2003	0.018	0.046	0.159	291	232	0.115	0.008
125	223	26.6710	-80.4359	9/26/2003	0.053	0.098	0.194	308	220	0.265	0.008

Method	EPA 365.2	EPA 365.2	EPA 365.2	EPA 110.2	EPA 310.1	EPA 350.1	EPA 353.2
Detection Level (mg/L)	0.002	0.003	0.003	25	3	0.019	0.008

BD = Below detection

NDA = No data available

Appendix 2.1 (continued). Water column Parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conduc. mS cm ⁻³	Ca mg L ⁻¹	Mg mg L ⁻¹	COD mg L ⁻¹
6	2.506	2.519	17.69	3.79	6.7	29.1	8.34	1.117	77.50	37.42	116.0
13	2.534	2.559	7.3	0.75	0.55	26.9	8.68	1.198	69.70	37.03	89.6
14	2.620	2.628	9.05	BD	7.1	29.1	8.15	1.270	73.80	38.30	113.1
21	2.591	2.610	16.36	6.35	10.2	30.7	8.57	11.480	57.20	31.86	113.1
22	2.591	2.610	0.3	BD	9.7	32.9	6.90	1.213	57.60	35.91	139.5
27	2.962	2.975	31.48	7.11	9.33	29.3	7.60	1.220	81.00	38.73	119.0
37	2.763	2.771	BD	7.33	32	31.7	8.38	1.226	58.00	34.05	130.7
37	2.620	2.628	BD	BD	7.8	32.3	8.38	1.054	55.50	33.75	116.0
37	2.763	2.771	1.41	BD	5.19	28.1	8.38	1.210	55.80	34.17	145.4
38	2.563	2.571	1.32	BD	11.25	33.3	8.31	1.203	45.06	28.39	116.0
65	3.390	3.398	5.49	BD	3.04	28.8	7.71	1.408	102.60	39.88	119.0
84	2.649	2.657	33.13	5.04	5.1	27.8	7.88	1.273	79.20	38.71	145.4
89	2.591	2.599	3.41	BD	0.88	26.4	7.86	1.225	65.80	36.92	145.4
104	2.677	2.685	20.4	4.59	NDA	28.1	7.61	1.240	80.90	40.08	NDA
108	2.877	2.885	2.99	BD	3.71	26.1	8.19	1.223	72.50	39.75	117.5
109	2.991	2.999	11.98	2.12	1.2	26.4	7.86	1.228	84.10	40.52	119.0
109	2.991	2.999	9.96	1.38	2.3	26.4	7.65	1.285	84.50	40.27	116.0
109	2.877	2.885	9.11	0.29	0.9	26.5	7.81	1.288	84.70	39.73	121.9
111	2.848	2.861	51.5	8.09	3.4	29.2	7.96	1.485	100.10	43.87	119.0
112	2.848	2.861	13.41	3.14	10.49	28.2	7.06	1.391	75.00	39.71	142.5
113	2.877	2.885	19.96	3.51	3.88	26.5	7.93	1.360	91.80	42.12	116.0
117	2.877	2.885	21.82	2.53	2.74	29.7	7.80	1.439	113.40	45.41	116.0
121	2.649	2.657	0.1	8.9	5.3	28	7.21	1.169	71.40	38.50	133.7
122	2.877	2.885	1.95	BD	7.81	27.9	6.46	1.140	65.30	39.20	142.5
122	2.991	2.999	0.93	BD	9.96	26.5	7.82	1.188	63.30	37.96	130.7
122	3.048	3.056	3.64	BD	8.32	29.2	7.93	1.204	65.50	39.60	132.2
123	3.076	3.084	5.39	BD	0.34	28.4	7.28	1.293	78.20	37.77	130.7
124	2.877	2.885	21.67	1.49	2.5	26.3	7.83	1.275	78.60	38.46	116.0
125	2.934	2.942	11.1	0.66	5.82	29.4	7.18	1.263	76.10	37.73	116.0
Method	EPA 351.2	TKN + NO ₃ + NO ₂	Standard Methods 18th Ed. 2540-C	Standard Methods 18th Ed. 2540-E	EPA 360.1	EPA 170.1	EPA 150.2	EPA 120.1	Standard Methods 18ed 3111	Standard Methods 18ed 3111	Standard Methods 5220 D

Detection

Level

(mg/L) 0.1 0.001 0.001

BD = Below detection

NDA = No data available

Appendix 2.2. Field parameters measured in September 03 in STA-1W Cell 5B.

Wetland Biogeochemistry Laboratory
 Draft Data File
 STA-1W Cell 5
 Water Sample Data

Contact Person: John R. White
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H = Hydrilla	N = Najas	AL=Algae
HC = Hydrocotille	WH = Water Hacinth	CH=Chara
C = Ceratophyllum	WL = Water Letucce	

Station	Lab ID	Latitude	Longitude	Sample Date	Time	Depth m	Secchi Depth m	Cloud Cover %	Sky	Notes
6	226	26.6690	-80.4430	9/26/2003	2:23	0.8	0.8	50	Cumulus Building	Open water
13	22 B	26.6670	-80.4410	9/26/2003	1:43	0.7	0.36	80	Rain in distance	H at surface with P, and WH patches
14	225	26.6700	-80.4410	9/26/2003	2:08	0.82	0.4	40	Clearing	Open water
21	224	26.6690	-80.4390	9/26/2003	1:26	0.8	0.8	80	Rain in distance	H at surface with spotty WH and WL
22	210	26.6720	-80.4390	9/25/2003	14:02	0.75	0.75	95	T-storms in distance	H at surface with P
27	227	26.6630	-80.4370	9/26/2003	2:37	0.8	0.5	60	Cumulus Building	Open water
37	207	26.6720	-80.4350	9/25/2003	12:43	0.8	0.6	60	Rain in distance	H at surface with P
37	208	26.6720	-80.4350	9/25/2003	12:43	0.8	0.55	60	Rain in distance	H at surface with P
37	209	26.6720	-80.4350	9/25/2003	12:43	0.8	0.6	60	Rain in distance	H at surface with P
38	206	26.6750	-80.4350	9/25/2003	12:25	0.85	0.55	50	Cumulus Building	N at surface, CT and H abundant
65	21 B	26.6750	-80.4270	9/26/2003	2:52	0.85	0.58	60	Cumulus Building	Open water
84	222	26.6720	-80.4200	9/26/2003	12:10	0.62	0.32	70	Breezy	H at surface with patches of live and dead WH
89	221	26.6700	-80.4180	9/26/2003	12:34	0.7	0.6	70	Breezy	WH bed
104	213	26.6720	-80.4120	9/25/2003	16:31	0.72	0.5	100	T-storms in distance	Open water
108	219	26.6700	-80.4100	9/26/2003	10:34	55	0.25	70	Clearing	H at surface with dead patch WH
109	216	26.6740	-80.4100	9/26/2003	10:00	0.6	0.3	80	Clearing	H at surface with small patch of WH
109	217	26.6740	-80.4100	9/26/2003	10:00	0.06	0.3	80	Clearing	H at surface with small patch of WH
109	218	26.6740	-80.4100	9/26/2003	10:00	0.6	0.3	80	Clearing	H at surface with small patch of WH
111	211	26.6680	-80.4080	9/25/2003	16:00	0.74	0.36	95	T-storms in distance	Open water
112	214	26.6720	-80.4080	9/25/2003	16:47	0.6	0.3	100	T-storms in distance	H at surface
113	215	26.6750	-80.4080	9/26/2003	9:45	64	0.3	98	Rain in distance	Open water
117	212	26.6720	-80.4040	9/25/2003	16:09	0.55	0.35	95	T-storms in distance	Open water
121	201	26.6704	-80.4439	9/25/2003	10:30	0.67	0.5	20	Cirrus Clouds	N at surface covered with periphyton
122	202	26.6717	-80.4437	9/25/2003	11:25	0.7	0.5	30	Cumulus Building	N at surface covered with periphyton
122	203	26.6717	-80.4437	9/25/2003	11:25	0.65	0.5	30	Cumulus Building	N at surface covered with periphyton
122	204	26.6717	-80.4437	9/25/2003	11:25	0.7	0.5	30	Cumulus Building	N at surface covered with periphyton
123	205	26.6687	-80.4440	9/25/2003	12:03	0.8	0.55	40	Cumulus Building	N at surface surrounded by WH and DW
124	220	26.6698	-80.4115	9/26/2003	10:51	0.65	0.3	50	Clearing	H and WH at surface
125	223	26.6710	-80.4359	9/26/2003	1:08	0.35	0.08	70	Breezy	WH bed and H, very shallow

Appendix 2.3. Soil parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Type of Soil	Floc depth cm	Peat interval		Total		
							cm	field ID	Total N g kg ⁻¹	Total C g kg ⁻¹	P mg kg ⁻¹
6	226	26.6690	-80.4430	9/26/2003	Peat	NA	10	6 peat	30.2	479	193
6	226	26.6690	-80.4430	9/26/2003	Floc	10	NA	6 floc	25.7	403	667
13	22 B	26.6670	-80.4410	9/26/2003	Peat	NA	10	13 peat	30.4	495	220
13	22 B	26.6670	-80.4410	9/26/2003	Floc	10	NA	13 floc	28.0	466	320
14	225	26.6700	-80.4410	9/26/2003	Floc	18	NA	14 floc	24.3	396	604
14	225	26.6700	-80.4410	9/26/2003	Peat	NA	10	14 peat	28.4	457	479
21	224	26.6690	-80.4390	9/26/2003	Floc	9	NA	21 floc	28.8	455	365
21	224	26.6690	-80.4390	9/26/2003	Peat	NA	10	21 peat	30.2	484	296
22	210	26.6720	-80.4390	9/25/2003	Floc	17	NA	22 floc	25.7	417	486
22	210	26.6720	-80.4390	9/25/2003	Peat	NA	10	22 peat	31.5	485	327
27	227	26.6630	-80.4370	9/26/2003	Peat	NA	10	27 peat	NDA	508	657
27	227	26.6630	-80.4370	9/26/2003	Floc	11	NA	27 floc	24.2	416	813
37	209	26.6720	-80.4350	9/25/2003	Floc	6	NA	37-3 floc	29.8	462	243
37	207	26.6720	-80.4350	9/25/2003	Peat	NA	10	37 peat	32.2	479	410
37	208	26.6720	-80.4350	9/25/2003	Floc	11	NA	37-2 floc	29.2	452	343
37	208	26.6720	-80.4350	9/25/2003	Peat	NA	10	37-2 peat	NDA	504	256
37	209	26.6720	-80.4350	9/25/2003	Peat	NA	10	37-3 peat	35.5	500	271
37	207	26.6720	-80.4350	9/25/2003	Floc	10	NA	37 floc	29.1	484	276
38	206	26.6750	-80.4350	9/25/2003	Peat	NA	10	38 peat	31.2	503	274
38	206	26.6750	-80.4350	9/25/2003	Floc	17	NA	38 floc	29.3	455	436
65	21 B	26.6750	-80.4270	9/26/2003	Peat	NA	10	21B peat	28.4	463	436
65	21 B	26.6750	-80.4270	9/26/2003	Floc	10	NA	21B floc	28.7	467	497
84	222	26.6720	-80.4200	9/26/2003	Floc	18	NA	84 floc	22.6	362	719
84	222	26.6720	-80.4200	9/26/2003	Peat	NA	10	84 peat	27.6	451	186
89	221	26.6700	-80.4180	9/26/2003	Floc	8	NA	89 floc	24.8	413	548
89	221	26.6700	-80.4180	9/26/2003	Peat	NA	10	89 peat	28.7	472	323
104	213	26.6720	-80.4120	9/25/2003	Peat	NA	10	104 peat	13.3	240	234
104	213	26.6720	-80.4120	9/25/2003	Floc	10	NA	104 floc	NDA	400	
108	219	26.6700	-80.4100	9/26/2003	Peat	NA	10	108 peat	31.6	362	284
108	219	26.6700	-80.4100	9/26/2003	Floc	20	NA	108 floc	30.0	464	300
109	218	26.6740	-80.4100	9/26/2003	Peat	NA	10	109-3 peat	34.0	504	164
109	216	26.6740	-80.4100	9/26/2003	Floc	14	NA	109-1 floc	29.8	455	417
109	217	26.6740	-80.4100	9/26/2003	Floc	14	NA	109-2 floc	29.5	448	457
109	216	26.6740	-80.4100	9/26/2003	Peat	NA	10	109-1 peat	28.1	839	134
109	217	26.6740	-80.4100	9/26/2003	Peat	NA	10	109-2 peat	34.1	523	125
109	218	26.6740	-80.4100	9/26/2003	Floc	18	NA	109-3 floc	28.5	457	NDA
111	211	26.6680	-80.4080	9/25/2003	Peat	NA	10	111 peat	28.7	465	357
111	211	26.6680	-80.4080	9/25/2003	Floc	10	NA	111 floc	26.0	426	654
112	214	26.6720	-80.4080	9/25/2003	Peat	NA	10	112 peat	30.6	475	242
112	214	26.6720	-80.4080	9/25/2003	Floc	10	NA	112 F	25.0	398	595
113	215	26.6750	-80.4080	9/26/2003	Peat	NA	10	113 peat	29.4	474	229
113	215	26.6750	-80.4080	9/26/2003	Floc	10	NA	113 floc	26.8	426	444
117	212	26.6720	-80.4040	9/25/2003	Peat	NA	10	117 peat	27.8	501	292
117	212	26.6720	-80.4040	9/25/2003	Floc	9	NA	117 floc	27.8	478	305
121	201	26.6704	-80.4439	9/25/2003	Peat	NA	10	N1 peat	26.8	419	364
121	201	26.6704	-80.4439	9/25/2003	Floc	20	NA	N1 floc	22.4	342	824
122	202	26.6717	-80.4437	9/25/2003	Peat	NA	10	N2-1 peat	29.6	457	346
122	202	26.6717	-80.4437	9/25/2003	Floc	20	NA	N2-1 floc	25.3	390	659
122	203	26.6717	-80.4437	9/25/2003	Floc	10	NA	N2-2 floc	25.7	383	657
122	204	26.6717	-80.4437	9/25/2003	Floc	10	NA	N2-3 floc	23.5	369	677
122	204	26.6717	-80.4437	9/25/2003	Peat	NA	10	N2-3 peat	33.2	481	290
122	203	26.6717	-80.4437	9/25/2003	Peat	NA	10	N2-2 peat	30.7	477	265
123	205	26.6687	-80.4440	9/25/2003	Peat	NA	10	N3 peat	25.4	499	688
123	205	26.6687	-80.4440	9/25/2003	Floc	14	NA	N3 floc	23.5	370	115
124	220	26.6698	-80.4115	9/26/2003	Peat	NA	10	WH-1 peat	30.8	496	224
124	220	26.6698	-80.4115	9/26/2003	Floc	8	NA	WH-1 floc	28.2	454	433
125	223	26.6710	-80.4359	9/26/2003	Peat	NA	10	WH peat	27.9	462	237
125	223	26.6710	-80.4359	9/26/2003	Floc	10	NA	WH-3 floc	NDA	173	446

	Methods:	Detection Level
TN:	Carlo Erba NA 1500 Ins. Manual and Methods of Soil Anaylsis Part 2, 2ed, section 31	0.02
TC:	Carlo Erba NA 1500 Ins. Manual and Methods of Soil Anaylsis Part 2, 2ed, section 31	0.003
TP:	Carlo Erba NA 1500 Ins. Manual and Methods of Soil Anaylsis Part 2, 2ed, section 31	0.002

BD = Below detection

NA = No applicable

Appendix 2.4. Pore water parameters for the sampling on September 03 in STA-1W Cell 5B.

Lab #	Station	Latitude	Longitude	Origin	Ca mg L ⁻¹	Mg mg L ⁻¹	SRP mg L ⁻¹	NH4 mg L ⁻¹	NO3 mg L ⁻¹	SO4 mg L ⁻¹	TKN mg L ⁻¹	TP mg L ⁻¹
226 F	6	26.6690	-80.4430	Floc	109.7	35.57	0.035	4.184	BD	16.846	8.389	0.207
226 P	6	26.6690	-80.4430	Peat	80.9	23.78	0.088	8.428	0.008	10.069	15.634	NDA
222B F	13	26.6670	-80.4410	Floc	NSA	NSA	0.032	4.273	BD	12.907	NDA	NDA
224 F	21	26.6690	-80.4390	Floc	110.6	41.68	0.426	8.034	BD	13.776	12.306	0.179
210 F	22	26.6720	-80.4390	Floc	116.3	44.89	0.17	8.625	BD	6.5	14.399	0.266
227 F	27	26.6630	-80.4370	Floc	121.4	41.22	0.125	4.182	BD	19.16	9.036	0.353
227 P	27	26.6630	-80.4370	Peat	111.2	28.79	0.569	15.303	0.014	5.707	20.375	NDA
207 F	37	26.6720	-80.4350	Floc	114	38.82	0.328	10.259	0.003	4.913	16.340	0.391
208 F	37	26.6720	-80.4350	Floc	117.5	41.04	0.243	12.854	BD	5.464	19.434	0.296
209 F	37	26.6720	-80.4350	Floc	108.4	37.48	0.027	4.982	0.003	6.057	10.894	0.083
207 P	37	26.6720	-80.4350	Peat	97.9	33.63	0.214	10.24	BD	8.042	14.928	0.153
208 P	37	26.6720	-80.4350	Peat	62.8	15.17	NSA	NSA	NSA	NSA	NSA	0.422
206 F	38	26.6750	-80.4350	Floc	140.4	46.9	0.049	2.555	0.003	3.936	5.800	0.141
221B F	65	26.6750	-80.4270	Floc	111.9	39.68	NSA	NSA	NSA	NSA	6.388	0.477
222 F	84	26.6720	-80.4200	Floc	115.8	38.97	0.04	2.514	BD	23.247	11.364	0.300
221 F	89	26.6700	-80.4180	Floc	100.5	35.77	0.184	7.332	0.003	6.959	14.046	0.412
213 F	104	26.6720	-80.4120	Floc	108.8	36.15	0.032	3.251	0.003	15.284	9.389	0.136
213P	104	26.6720	-80.4120	Peat	NSA	NSA	1.446	14.249	0.003	NSA	NSA	NDA
219 F	108	26.6700	-80.4100	Floc	139.6	35.86	0.059	5.491	BD	5.977	9.599	0.256
219 P	108	26.6700	-80.4100	Peat	40.42	4.5	0.042	6.628	0.008	22.538	21.552	NDA
216 F	109	26.6740	-80.4100	Floc	118.9	41.45	0.182	14.385	0.003	10.744	18.021	0.130
217 F	109	26.6740	-80.4100	Floc	119.6	40.75	0.096	9.089	BD	15.146	14.928	0.301
218 F	109	26.6740	-80.4100	Floc	111	40.3	0.246	6.423	0.003	10.71	12.541	0.153
216P	109	26.6740	-80.4100	Peat	NSA	NSA	0.135	2.888	0.003	NSA	NSA	NDA
218 P	109	26.6740	-80.4100	Peat	14.53	3.195	0.334	10.404	0.014	9.09	NSA	0.183
211 F	111	26.6680	-80.4080	Floc	106.5	41.12	0.017	2.038	0.003	23.855	5.211	0.180
214 F	112	26.6720	-80.4080	Floc	117.7	35.85	0.049	8.185	0.008	14.469	11.482	0.156
214P	112	26.6720	-80.4080	Peat	NSA	NSA	0.079	10.296	0.003	NSA	NSA	NDA
215 F	113	26.6750	-80.4080	Floc	104.2	37.78	0.065	1.581	0.008	21.462	4.623	0.241
215P	113	26.6750	-80.4080	Peat	NSA	NSA	0.041	11.885	0.003	NSA	NSA	NDA
225 F	114	26.6700	-80.4410	Floc	101.7	38.35	0.273	7.624	BD	7.219	8.624	0.079
225 P	114	26.6700	-80.4410	Peat	98.34	19.62	0.084	10.322	0.003	8.286	17.223	NDA
212 F	117	26.6720	-80.4040	Floc	117.1	36.54	0.065	2.728	0.019	21.009	7.800	0.087
201 F	121	26.6704	-80.4439	Floc	79.7	39.37	0.017	2.697	0.008	16.56	6.153	0.054
201 P	121	26.6704	-80.4439	Peat	81.6	34.92	0.131	2.801	0.003	30.999	9.481	0.145
202 F	122	26.6717	-80.4437	Floc	110.3	38.21	0.221	7.126	0.003	9.599	14.575	0.281
203 F	122	26.6717	-80.4437	Floc	115.6	37.44	0.175	6.483	0.003	13.528	14.752	0.281
204 F	122	26.6717	-80.4437	Floc	106.8	34.85	0.173	2.335	0.003	9.958	13.516	0.196
202 P	122	26.6717	-80.4437	Peat	67.7	20.96	0.004	10.016	0.005	13.003	14.928	0.436
203 P	122	26.6717	-80.4437	Peat	90.9	26.84	0.016	10.928	0.008	7.76	20.375	0.499
204 P	122	26.6717	-80.4437	Peat	62.4	19.99	0.258	5.748	0.005	6.781	11.129	0.220
205 F	123	26.6687	-80.4440	Floc	109.5	33.92	0.017	4.636	BD	13.236	9.213	0.056
220 F	124	26.6698	-80.4115	Floc	118.4	35.48	0.217	6.634	BD	8.342	13.516	0.236
220 P	124	26.6698	-80.4115	Peat	60.2	9.93	0.049	3.28	0.003	15.886	17.551	NDA
223 F	125	26.6710	-80.4359	Floc	108.6	33.46	0.277	7.232	0.003	10.762	12.070	0.064
223P	125	26.6710	-80.4359	Peat	NSA	NSA	NSA	NSA	NSA	11.129	NDA	
					Standard Methods 18ed 3111	Standard Methods 18ed 3111	EPA 365.1	EPA 350.1	EPA 353.2	EPA 300.0	EPA 351.2	EPA 365.1
				Detection Level (mg/L)			0.002	0.019	0.008	0.019	0.1	0.002

BD = below detection

NSA = no sample available

Appendix 2.5. Vegetation parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	Veg. Cov. %	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹	Description
6	226	26.6690	-80.4430	9/26/2003	0	none	0.000	0.000				
13	22 B	26.6670	-80.4410	9/26/2003	100	H	7.440	0.524	1309	21.13	273.55	site 13 hyd
14	225	26.6700	-80.4410	9/26/2003	0	none	0.000	0.000				
21	224	26.6690	-80.4390	9/26/2003	100	H	5.920	0.432	2658	NDA	472.14	site 21 hyd
						HC	0.341	0.012	1677	20.03	307.07	site 21 hydrocotle
						C	0.114	0.005	2509	26.80	277.74	site 21 Cerat.
						Total	6.375	0.449				
22	210	26.6720	-80.4390	9/25/2003	100	H	12.080	1.616	847	16.37	302.65	site 22 Hyd
27	227	26.6630	-80.4370	9/26/2003	0	none	0.000	0.000				
37	207	26.6720	-80.4350	9/25/2003	95	H	5.680	0.576	1047	16.43	302.02	site 37-1 Hyd.
37	208	26.6720	-80.4350	9/25/2003	95	H	6.720	0.884	961	15.37	286.45	site 37-2 hyd.
37	209	26.6720	-80.4350	9/25/2003	95	H	6.400	0.660	870	41.21	316.85	site 37-3 Hyd.
38	206	26.6750	-80.4350	9/25/2003	90	N	10.600	0.608	1988	24.41	317.16	site 38 naj.
						H	0.105	0.009	1040	16.56	267.88	site 38 hyd.
						Total	10.705	0.617				
65	21 B	26.6750	-80.4270	9/26/2003	0	none	0.000	0.000	1264			
84	222	26.6720	-80.4200	9/26/2003	50	H	3.312	0.326	1951	15.90	222.72	site 84 Hyd.
						C	0.370	0.023		23.10	273.64	site 84 Cerat.
						Total	3.682	0.349				
89	221	26.6700	-80.4180	9/26/2003	100	H	1.600	0.079	1044	29.24	362.18	site 89 hyd
						WH	26.240	1.860	2270	11.47	385.63	site 89 wat hya
						Total	27.840	1.939				
104	213	26.6720	-80.4120	9/25/2003	0	none	0.000	0.000	2402	20.81	262.73	site 104 Hyd.
108	219	26.6700	-80.4100	9/26/2003	100	H	22.560	1.500	3760	30.42	305.83	site 108 Hyd.
109	216	26.6740	-80.4100	9/26/2003	95	H	3.680	0.308	2725	21.50	296.64	site 109-1 Hyd.
109	217	26.6740	-80.4100	9/26/2003	95	H	4.880	0.460	1768	17.86	257.20	site 109-2 hyd
109	218	26.6740	-80.4100	9/26/2003	95	H	7.360	0.836	1533	18.12	243.65	site 109-3 Hyd.
111	211	26.6680	-80.4080	9/25/2003	0	none	0.000	0.000				
112	214	26.6720	-80.4080	9/25/2003	100	H	NDA	NDA				
113	215	26.6750	-80.4080	9/26/2003	0	none	0.000	0.000				
117	212	26.6720	-80.4040	9/25/2003	0	none	0.000	0.000				
121	201	26.6704	-80.4439	9/25/2003	90	H	2.296	0.184	1298	21.64	268.83	site N1 hyd
						N	4.040	0.248	2530	22.09	237.56	site N1 Naj.
						Total	6.336	0.433				
122	202	26.6717	-80.4437	9/25/2003	95	N	7.600	0.748	2117	22.97	304.32	site N2-1 naj.
122	203	26.6717	-80.4437	9/25/2003	95	N	6.880	0.536	2586	25.75	291.80	site N2-2 naj
122	204	26.6717	-80.4437	9/25/2003	95	N	6.080	0.371	3392	25.34	292.67	site N2-3 naj.
123	205	26.6687	-80.4440	9/25/2003	95	H	3.684	0.348	3922	24.88	274.89	site N3 hyd.
						N	1.440	0.121	3003	25.49	265.88	site N3 naj
						Total	5.124	0.469				
124	220	26.6698	-80.4115	9/26/2003	100	H	0.496	0.031	4070	13.63	378.57	site WH-1 wat. Hya.
						WH	7.360	0.338	7911	29.87	361.07	site WH-1 hyd.
						WL	6.400	0.182	1956	19.92	324.97	site WH-1 wat lettuc
						Total	14.256	0.552	5034	20.50	338.01	site WH-1 wat lettuc
125	223	26.6710	-80.4359	9/26/2003	100	H	4.560	0.268	4070	29.64	347.38	site WH-3 hyd
						C	0.004	0.001				
						WH	26.840	1.736	3166	12.41	362.65	site WH-3 wat. Hya.
						Total	31.404	2.008				

Method

Carlo Erba NA	Carlo Erba NA
1500 Ins.	1500 Ins.
Manual	Manual

Detection Level

0.002 0.003 0.015

NDA = No data available

H = Hydrila, HC = Hydrocotille, C = Ceratophyllum, WH = Water Hyacinth, WL = Water lettuce

Appendix 3.1. Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
1	448	26.651	-80.443	1/6/2004	0.004	0.016	0.030	162	182	0.056
2	396	26.655	-80.443	1/5/2004	0.004	0.016	0.026	167	174	0.047
3	426	26.658	-80.443	1/5/2004	0.007	0.021	0.056	173	122	0.047
4	378	26.662	-80.443	1/5/2004	0.026	0.046	0.077	204	206	0.302
5	441	26.665	-80.443	1/6/2004	0.004	0.014	0.029	178	190	0.028
6	377	26.669	-80.443	1/5/2004	0.002	0.014	0.034	199	212	0.091
7	432	26.672	-80.443	1/5/2004	0.008	0.062	0.022	175	196	0.101
8	427	26.675	-80.443	1/5/2004	0.002	0.026	0.013	170	112	0.016
8	428	26.675	-80.443	1/5/2004	0.002	0.011	0.027	170	68	0.008
8	429	26.675	-80.443	1/5/2004	0.002	0.015	0.024	178	175	0.022
9	445	26.653	-80.441	1/6/2004	0.012	0.027	0.040	174	192	0.054
10	393	26.657	-80.441	1/5/2004	0.021	0.043	0.059	170	206	0.126
11	425	26.66	-80.441	1/5/2004	0.015	0.032	0.058	173	196	0.107
12	379	26.663	-80.441	1/5/2004	0.012	0.027	0.095	194	204	0.116
13	440	26.667	-80.441	1/6/2004	0.002	0.013	0.029	183	202	0.031
14	376	26.67	-80.441	1/5/2004	0.007	0.022	0.043	186	212	0.114
15	431	26.674	-80.441	1/5/2004	0.004	0.014	0.022	170	204	0.047
16	397	26.651	-80.439	1/5/2004	0.005	0.016	0.024	162	190	0.028
16	399	26.651	-80.439	1/5/2004	0.005	0.016	0.025	183	189	0.031
16	400	26.651	-80.439	1/5/2004	0.004	0.016	0.026	162	190	0.037
17	446	26.655	-80.439	1/6/2004	0.005	0.018	0.139	167	196	0.024
18	395	26.658	-80.439	1/5/2004	0.015	0.030	0.048	165	198	0.104
19	424	26.662	-80.439	1/5/2004	0.010	0.024	0.042	173	64	0.133

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
20	380	26.665	-80.439	1/5/2004	0.004	0.016	0.027	209	204	0.102
20	381	26.665	-80.439	1/5/2004	0.004	0.016	0.027	176	204	0.063
20	382	26.665	-80.439	1/5/2004	0.004	0.016	0.029	175	204	0.062
21	436	26.669	-80.439	1/5/2004	0.002	0.013	0.024	180	208	0.035
21	437	26.672	-80.439	1/5/2004	0.002	0.013	0.026	175	210	0.024
21	438	26.675	-80.439	1/5/2004	0.002	0.013	0.029	175	208	0.019
22	337	26.653	-80.437	1/5/2004	0.004	0.017	0.030	180	214	0.122
23	430	26.657	-80.437	1/5/2004	0.002	0.014	0.035	175	212	0.035
24	401	26.66	-80.437	1/5/2004	0.008	0.021	0.034	180	216	0.177
25	444	26.66	-80.437	1/6/2004	0.016	0.035	0.138	192	200	0.284
26	394	26.66	-80.437	1/5/2004	0.008	0.022	0.045	167	186	0.058
27	423	26.663	-80.437	1/5/2004	0.010	0.026	0.061	170	44	0.119
28	383	26.667	-80.437	1/5/2004	0.008	0.022	0.051	188	196	0.024
29	439	26.67	-80.437	1/5/2004	0.005	0.022	0.042	178	212	0.042
30	336	26.674	-80.437	1/5/2004	0.007	0.020	0.032	167	210	0.086
31	410	26.651	-80.435	1/6/2004	0.007	0.021	0.085	180	208	0.130
32	402	26.655	-80.435	1/5/2004	0.005	0.018	0.077	162	210	0.137
33	375	26.658	-80.435	1/5/2004	0.013	0.029	0.048	175	204	0.145
34	398	26.662	-80.435	1/5/2004	0.007	0.022	0.056	183	204	0.062
35	422	26.665	-80.435	1/5/2004	0.008	0.024	0.053	173	200	0.048
36	384	26.669	-80.435	1/5/2004	0.004	0.014	0.027	170	208	0.056
37	435	26.672	-80.435	1/5/2004	0.004	0.022	0.058	170	212	0.059
38	335	26.675	-80.435	1/5/2004	0.004	0.050	0.015	167	196	0.034
39	449	26.653	-80.433	1/6/2004	0.002	0.014	0.030	177	202	0.064
40	403	26.657	-80.433	1/5/2004	0.008	0.022	0.037	173	210	0.093
41	447	26.66	-80.433	1/6/2004	0.007	0.021	0.045	177	190	0.035
42	392	26.66	-80.433	1/5/2004	0.008	0.021	0.043	170	196	0.066

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
43	373	26.663	-80.433	1/6/2004	0.004	0.016	0.027	159	206	0.038
44	385	26.667	-80.433	1/5/2004	0.002	0.011	0.027	175	206	0.013
45	434	26.67	-80.433	1/5/2004	0.005	0.043	0.019	162	102	0.059
46	409	26.651	-80.431	1/5/2004	0.004	0.018	0.064	193	182	0.020
47	450	26.655	-80.431	1/6/2004	0.008	0.024	0.141	177	212	0.076
48	404	26.658	-80.431	1/5/2004	0.004	0.019	0.045	178	200	0.042
49	374	26.662	-80.431	1/6/2004	0.005	0.021	0.034	177	190	0.042
50	391	26.665	-80.431	1/5/2004	0.007	0.021	0.030	179	202	0.152
51	421	26.669	-80.431	1/5/2004	0.004	0.018	0.072	170	98	0.046
52	386	26.672	-80.431	1/5/2004	0.008	0.019	0.029	188	200	0.050
52	387	26.672	-80.431	1/5/2004	0.010	0.019	0.029	165	202	0.031
52	388	26.672	-80.431	1/5/2004	0.005	0.019	0.026	183	202	0.033
53	433	26.675	-80.431	1/5/2004	0.005	0.021	0.040	165	200	0.029
54	408	26.653	-80.429	1/6/2004	0.003	0.016	0.035	167	186	0.041
55	412	26.657	-80.429	1/5/2004	0.013	0.032	0.090	180	204	0.063
56	405	26.66	-80.429	1/5/2004	0.021	0.038	0.053	162	200	0.092
57	442	26.663	-80.429	1/6/2004	0.012	0.029	0.043	175	196	0.097
58	390	26.667	-80.429	1/5/2004	0.018	0.034	0.046	170	212	0.121
59	420	26.67	-80.429	1/5/2004	0.026	0.045	0.080	162	168	0.127
60	389	26.674	-80.429	1/5/2004	0.007	0.021	0.034	159	200	0.133
61	325	26.662	-80.427	1/4/2004	0.013	0.033	0.051	178	198	0.082
62	368	26.665	-80.427	1/4/2004	0.015	0.029	0.075	170	214	0.089
63	326	26.668	-80.427	1/4/2004	0.007	0.025	0.046	170	208	0.087
64	419	26.672	-80.427	1/5/2004	0.035	0.061	0.244	175	208	0.218
65	333	26.675	-80.427	1/4/2004	0.020	0.043	0.093	181	204	0.129
66	366	26.66	-80.425	1/4/2004	0.029	0.054	0.083	184	206	0.190

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
67	324	26.663	-80.425	1/4/2004	0.004	0.017	0.027	178	200	0.062
68	369	26.667	-80.425	1/4/2004	0.005	0.019	0.048	164	210	0.065
69	327	26.67	-80.425	1/4/2004	0.009	0.023	0.040	159	200	0.073
69	328	26.67	-80.425	1/4/2004	0.010	0.023	0.038	159	198	0.130
69	329	26.67	-80.425	1/4/2004	0.009	0.023	0.038	178	197	0.072
70	418	26.674	-80.425	1/5/2004	0.012	0.034	0.061	162	200	0.067
71	367	26.662	-80.424	1/4/2004	0.007	0.026	0.043	181	212	0.100
72	323	26.665	-80.424	1/4/2004	0.017	0.033	0.050	173	210	0.130
73	370	26.668	-80.424	1/4/2004	0.004	0.019	0.030	170	210	0.086
74	330	26.672	-80.424	1/4/2004	0.005	0.022	0.035	169	198	0.065
75	415	26.675	-80.424	1/5/2004	0.002	0.013	0.029	149	196	0.007
75	416	26.675	-80.424	1/5/2004	0.002	0.014	0.038	149	196	0.002
75	417	26.675	-80.424	1/5/2004	0.002	0.016	0.043	135	118	0.054
76	303	26.66	-80.422	1/4/2004	0.005	0.023	0.045	159	210	0.039
77	363	26.663	-80.422	1/4/2004	0.013	0.029	0.038	173	210	0.076
77	364	26.663	-80.422	1/4/2004	0.015	0.027	0.042	173	210	0.067
77	365	26.663	-80.422	1/4/2004	0.009	0.022	0.053	184	168	0.044
78	322	26.667	-80.422	1/4/2004	0.015	0.033	0.063	178	210	0.132
79	371	26.67	-80.422	1/5/2004	0.002	0.016	0.067	167	360	0.014
80	331	26.674	-80.422	1/4/2004	0.004	0.017	0.025	159	186	0.065
81	304	26.662	-80.42	1/4/2004	0.004	0.015	0.043	175	202	0.080
81	305	26.662	-80.42	1/4/2004	0.002	0.013	0.043	175	202	0.089
81	306	26.662	-80.42	1/4/2004	0.004	0.015	0.040	153	204	0.064
82	362	26.665	-80.42	1/4/2004	0.021	0.040	0.150	184	214	0.142
83	321	26.668	-80.42	1/4/2004	0.013	0.032	0.050	164	194	0.102
84	372	26.672	-80.42	1/6/2004	0.004	0.021	0.054	144	200	0.016
85	332	26.675	-80.42	1/4/2004	0.002	0.013	0.030	170	198	0.013

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
86	341	26.66	-80.418	1/4/2004	0.005	0.020	0.055	181	206	0.082
87	307	26.663	-80.418	1/4/2004	0.013	0.032	0.055	195	204	0.142
88	361	26.667	-80.418	1/4/2004	0.004	0.016	0.048	161	204	0.063
89	318	26.67	-80.418	1/4/2004	0.005	0.018	0.043	161	188	0.064
89	319	26.67	-80.418	1/4/2004	0.006	0.018	0.035	164	190	0.068
89	320	26.67	-80.418	1/4/2004	0.005	0.018	0.033	167	190	0.057
90	413	26.674	-80.418	1/5/2004	0.005	0.016	0.026	138	192	0.031
91	342	26.662	-80.416	1/4/2004	0.009	0.018	0.070	195	190	0.122
92	308	26.665	-80.416	1/4/2004	0.004	0.013	0.043	161	192	0.019
93	360	26.668	-80.416	1/4/2004	0.004	0.023	0.058	173	176	0.065
94	317	26.672	-80.416	1/4/2004	0.013	0.032	0.055	161	204	0.077
95	414	26.675	-80.416	1/5/2004	0.007	0.024	0.051	154	210	0.059
96	302	26.66	-80.414	1/4/2004	0.002	0.017	0.032	167	200	0.021
97	343	26.663	-80.414	1/4/2004	0.044	0.070	0.126	196	198	0.226
98	309	26.667	-80.414	1/4/2004	0.004	0.014	0.042	128	171	0.019
99	359	26.67	-80.414	1/4/2004	0.007	0.015	0.038	175	189	0.072
100	316	26.674	-80.414	1/4/2004	0.010	0.028	0.058	153	208	0.052
101	301	26.662	-80.412	1/4/2004	0.004	0.022	0.032	178	202	0.035
102	344	26.665	-80.412	1/4/2004	0.018	0.036	0.197	170	198	0.090
103	310	26.668	-80.412	1/4/2004	0.017	0.038	0.061	162	194	0.030
104	357	26.672	-80.412	1/4/2004	0.015	0.038	0.073	159	204	0.065
105	315	26.675	-80.412	1/4/2004	0.007	0.027	0.068	178	216	0.020
106	338	26.663	-80.41	1/4/2004	0.026	0.045	0.046	186	194	0.306
107	345	26.667	-80.41	1/4/2004	0.007	0.023	0.099	173	192	0.028
107	346	26.667	-80.41	1/4/2004	0.013	0.032	0.088	167	192	0.083
107	347	26.667	-80.41	1/4/2004	0.020	0.043	0.150	203	194	0.243
108	311	26.67	-80.41	1/4/2004	0.028	0.051	0.089	167	194	0.064
109	356	26.674	-80.41	1/4/2004	0.023	0.050	0.094	184	214	0.011

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	Ammonium mg N L ⁻¹
110	340	26.665	-80.408	1/4/2004	0.021	0.045	0.041	186	198	0.074
111	348	26.668	-80.408	1/4/2004	0.010	0.030	0.046	173	190	0.060
112	312	26.672	-80.408	1/4/2004	0.028	0.063	0.132	186	216	0.039
113	355	26.675	-80.408	1/4/2004	0.007	0.028	0.048	175	210	0.147
114	339	26.667	-80.406	1/4/2004	0.033	0.071	0.051	175	211	0.079
115	349	26.67	-80.406	1/4/2004	0.036	0.069	0.108	175	218	0.089
116	313	26.674	-80.406	1/4/2004	0.021	0.046	0.065	178	218	0.059
117	350	26.672	-80.404	1/4/2004	0.055	0.089	0.286	189	216	0.231
117	351	26.672	-80.404	1/4/2004	0.037	0.066	0.144	192	216	0.129
117	352	26.672	-80.404	1/4/2004	0.052	0.088	0.182	189	220	0.282
118	314	26.675	-80.404	1/4/2004	0.013	0.022	0.070	167	208	0.050
119	353	26.674	-80.402	1/4/2004	0.021	0.051	0.084	174	220	0.082
120	354	26.675	-80.401	1/4/2004	0.037	0.063	0.159	186	210	0.214
blank	334	NA	NA	1/4/2004	0.002	0.003	0.003	36	3.0	0.008
blank	358	NA	NA	1/4/2004	0.002	0.003	0.003	25	3.0	ND
blank	406	NA	NA	1/6/2004	0.002	0.003	0.003	25	3.0	ND
blank	407	NA	NA	1/6/2004	0.002	0.003	0.003	25	3.0	ND
blank	411	NA	NA	1/5/2004	0.002	0.003	0.003	25	3.0	ND

Method EPA 365.2 EPA 365.2 EPA 365.2 EPA 110.2 EPA 310.1 EPA 350.1

Detection Level (mg/L)	0.002	0.003	0.003	25	3	0.019
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ND = No detected

NDA = No data available

NA = No applicable

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Water Temp °C	DO mg L ⁻¹	pH	Conduc. mS cm ⁻³	COD mg L ⁻¹
1	0.025	2.654	2.679	2.65	ND	21.9	6.45	8.32	1013	94.5
2	0.019	2.194	2.213	3.35	0.25	23.8	9.89	8.85	958	94.5
3	0.014	1.632	1.646	9.90	5.55	22.72	5.88	8.05	1050	94.5
4	0.025	2.974	2.999	ND	ND	21.6	2.47	7.76	999	94.5
5	0.025	2.594	2.619	4.05	0.35	24.11	9.29	8.36	1124	97.4
6	0.025	2.484	2.508	1.80	ND	21.2	6.07	8.18	1104	94.5
7	0.025	2.982	3.007	11.80	4.4	22.25	4.64	7.62	1099	101.7
8	0.003	1.200	1.203	1.45	ND	23.92	9.47	8.32	1138	94.5
8	0.003	2.356	2.359	1.60	ND	23.9	9.12	8.29	1141	94.5
8	0.008	2.565	2.573	2.20	ND	23.52	8.63	8.25	1132	94.5
9	0.036	2.982	3.018	4.75	0.55	22.38	5.93	8.27	1044	100.2
10	0.058	2.448	2.506	1.55	ND	29.3	4.63	7.99	1037	108.9
11	0.036	1.821	1.857	4.20	ND	22.46	5.5	7.84	1070	94.5
12	0.025	3.311	3.336	15.40	ND	22	3	7.87	1004	94.5
13	0.019	2.499	2.518	1.70	ND	22.84	7.48	8.15	1125	120.5
14	0.025	2.652	2.677	1.70	ND	21.2	4.18	7.92	1094	101.7
15	0.036	2.565	2.600	ND	ND	22.91	5.44	7.92	1122	94.5
16	0.047	2.194	2.240	4.31	ND	23.4	8.01	8.38	1013	108.9
16	0.047	2.206	2.252	1.90	ND	23.5	10.45	8.49	1027	94.5
16	0.047	2.294	2.341	1.35	ND	23.5	8.6	8.51	1026	108.9
17	0.058	2.726	2.783	9.50	2.05	21.6	2.92	8.15	1049	94.5
18	0.036	2.265	2.300	1.65	ND	25.1	11.98	8.89	1016	108.9
19	0.052	1.792	1.844	2.15	ND	22.8	6.53	7.95	1104	94.5

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Water Temp °C	DO mg L ⁻¹	pH	Conduc. mS cm ⁻³	COD mg L ⁻¹
20	0.019	2.395	2.414	ND	ND	21.4	3.04	7.83	1007	94.5
20	0.019	2.649	2.668	4.35	0.1	21.3	2.91	7.84	1007	94.5
20	0.014	2.436	2.450	11.70	6.4	21.2	2.97	7.83	1005	94.5
21	0.003	2.535	2.538	1.00	ND	23.32	8.51	8.14	1152	91.6
21	0.003	2.594	2.597	5.35	0.55	23.45	8.65	8.19	1154	94.5
21	0.003	2.624	2.627	8.90	2.45	23.15	8.38	8.17	1148	97.4
22	0.038	2.395	2.433	0.17	ND	21.4	2.37	7.76	1125	51.0
23	0.025	2.565	2.589	7.90	2.35	23.03	6.62	7.95	1144	94.5
24	0.079	2.265	2.344	1.05	ND	23.4	5.62	8.04	1083	108.9
25	0.069	4.354	4.422	13.84	4.74	22.65	8.17	8.1	1109	103.1
26	0.025	2.531	2.556	12.50	5.95	24.6	11.04	8.98	996	94.5
27	0.041	2.223	2.265	3.80	0.2	22.53	5.99	7.93	1083	108.9
28	0.003	2.312	2.315	8.56	ND	21.2	6.42	8.08	1019	94.5
29	0.014	2.684	2.698	16.05	6	23.11	6.78	8.07	1121	97.4
30	0.038	2.453	2.491	1.40	153.25	22	6.19	7.84	1038	94.5
31	0.036	3.045	3.081	33.40	7	23.06	4.77	7.91	1110	94.5
32	0.058	2.472	2.529	4.45	0.25	23.3	4.97	n/a	1044	108.9
33	0.030	2.775	2.805	14.10	ND	22.4	6.66	8.04	1097	94.5
34	0.025	2.708	2.733	14.25	0.1	22.9	5.68	7.99	1030	123.4
35	0.019	2.176	2.195	12.60	4.5	21.85	5.78	8.01	1099	94.5
36	0.019	2.501	2.520	0.55	ND	22	4.64	7.88	1087	80.0
37	0.014	2.982	2.996	16.00	5.7	23.22	6.73	7.96	1126	97.4
38	0.022	2.348	2.370	5.92	0.385	21.2	5.32	7.94	996	94.5
39	0.063	2.923	2.986	14.20	4.8	23.5	6.65	8.04	1117	97.4
40	0.058	2.188	2.245	2.45	ND	23.4	5.7	n/a	1055	94.5
41	0.025	2.684	2.709	5.10	0.7	22.37	7.75	8.26	1.76	94.5
42	0.063	2.294	2.357	7.70	3	21.6	4.98	8.36	993	108.9

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Water Temp °C	DO mg L ⁻¹	pH	Conduc. mS cm ⁻³	COD mg L ⁻¹
43	0.014	2.278	2.291	2.30	ND	22.45	8.37	8.24	1085	80.0
44	0.003	2.265	2.267	9.35	4.1	22.6	7.14	8.24	1016	65.5
45	0.008	2.624	2.632	5.95	1.45	22.43	5.55	7.87	1108	94.5
46	0.014	2.495	2.509	5.30	ND	24.5	13.63	9.09	1095	108.9
47	0.041	2.923	2.964	20.60	5.6	22.3	4.22	8.01	1089	97.4
48	0.025	1.969	1.994	9.05	1.55	24.4	9.9	n/a	1005	108.9
49	0.014	2.365	2.379	1.25	ND	22.84	9.87	8.46	1065	94.5
50	0.019	2.253	2.272	0.31	ND	21.9	3.72	7.88	1030	94.5
51	0.019	2.188	2.207	22.90	12.5	21.74	5.57	7.84	1095	94.5
52	0.036	2.058	2.093	1.40	ND	21.7	7.87	8.05	997	94.5
52	0.025	2.093	2.118	0.10	ND	21.9	7.3	8.18	994	80.0
52	0.025	2.087	2.112	0.30	ND	21.9	8.15	8.28	995	94.5
53	0.008	2.296	2.304	200.55	0.25	23.24	9.58	8.56	1082	94.5
54	0.008	2.324	2.332	3.05	ND	21.74	5.71	8.37	1040	123.4
55	0.036	2.614	2.649	6.85	1.05	23.27	7.9	8.28	1096	108.9
56	0.025	1.851	1.876	4.15	0.15	24.9	9.11	n/a	989	94.5
57	0.058	2.565	2.622	4.35	0.55	21.59	3.78	8.02	1074	94.5
58	0.052	2.247	2.299	1.90	ND	22.3	2.84	7.81	1019	94.5
59	0.041	2.147	2.188	18.70	8.1	21.24	2.84	7.63	1057	94.5
60	0.014	2.265	2.278	0.90	1.6	22.5	9.56	8.33	1006	94.5
61	0.033	2.453	2.486	ND	ND	21.4	3.1	7.85	983	123.4
62	0.079	2.605	2.685	8.35	3.95	24.93	20.18	9.87	979	80.0
63	0.066	2.208	2.273	2.05	ND	23.3	8.13	8.16	972	94.5
64	0.052	3.536	3.588	55.95	18.55	22.25	3.6	7.47	1021	94.5
65	0.025	2.863	2.887	26.40	3.7	24	5.88	7.88	1018	65.5
66	0.069	2.711	2.779	8.90	1.55	21.85	4.88	7.8	1064	94.5

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Nitrate +					Water				
	Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH	Conduc. mS cm ⁻³	COD mg L ⁻¹
67	0.027	2.289	2.317	0.70	ND	21.4	3.81	7.77	990	65.5
68	0.096	2.354	2.450	17.75	9.7	24.87	15.15	9.4	959	65.5
69	0.060	1.927	1.987	1.85	ND	23.2	7.95	8.1	981	94.5
69	0.047	2.044	2.090	2.35	ND	23.2	7.99	8.14	981	94.5
69	0.055	1.938	1.993	2.65	ND	23.2	8.11	8.12	981	108.9
70	0.019	2.164	2.183	5.00	ND	22.2	6.72	7.9	1007	80.0
71	0.030	2.395	2.425	3.20	0	22.99	8.67	8.2	1094	80.0
72	0.071	2.365	2.437	2.65	ND	22.2	4.95	7.77	1014	65.5
73	0.063	2.266	2.329	2.80	ND	22.94	8.15	8.1	1049	80.0
74	0.038	1.956	1.994	1.65	ND	22.8	6.77	7.98	940	80.0
75	0.014	1.810	1.823	4.95	ND	22.19	7.79	8.28	978	94.5
75	0.003	2.058	2.061	11.00	2.4	22.19	7.63	8.27	979	80.0
75	0.003	2.194	2.197	28.60	8.8	22.19	7.75	8.25	979	94.5
76	0.016	2.289	2.306	2.10	ND	21.1	5.85	7.91	981	65.5
77	0.112	2.325	2.437	3.10	0.05	23.1	10.3	8.41	1067	51.0
77	0.085	2.365	2.450	1.90	ND	22.38	7.52	8.38	1071	94.5
77	0.079	3.301	3.381	14.25	6.65	23.66	14.1	8.38	1079	108.9
78	0.066	2.494	2.560	11.55	2.4	22.7	6.16	7.86	1056	94.5
79	0.025	2.453	2.478	20.95	8.15	22.92	8.14	8.14	1003	94.5
80	0.022	1.927	1.948	1.50	ND	22.6	7.25	8.03	910	94.5
81	0.022	2.383	2.405	4.25	ND	20.9	1.81	7.49	976	94.5
81	0.027	2.289	2.317	3.60	ND	20.7	1.66	7.5	1064	80.0
81	0.022	2.336	2.358	3.00	ND	20.7	1.68	7.48	1064	94.5
82	0.093	4.577	4.670	24.45	6.3	21.97	4.37	7.72	1078	94.5
83	0.060	2.436	2.496	3.00	ND	22.3	5.58	7.89	1009	94.5
84	0.008	2.266	2.274	11.00	3.5	21.71	7.34	8	970	65.5
85	0.016	1.927	1.943	2.65	ND	23.5	8.9	8.31	937	108.9

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Nitrate +		Water						Conduc.	COD
	Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH		
86	0.016	2.137	2.153	19.86	7.286	22.33	8.8	8.1	1084	108.9
87	0.027	2.325	2.352	0.90	ND	20.6	1.16	7.46	1051	94.5
88	0.033	2.465	2.498	18.80	4	21.17	5.89	7.83	1035	94.5
89	0.044	1.968	2.011	3.50	ND	22.5	3.55	8.28	901	65.5
89	0.033	1.927	1.959	1.70	ND	22.1	3.83	8.05	899	80.0
89	0.033	1.898	1.930	1.75	ND	22	4.46	8.07	899	80.0
90	0.019	1.833	1.852	0.05	ND	20.75	2.49	7.7	948	94.5
91	0.022	2.465	2.487	11.45	2.25	19.08	1.5	7.71	973	108.9
92	0.022	2.167	2.188	1.80	ND	20.8	1.63	7.88	938	94.5
93	0.044	2.295	2.339	2.80	ND	20.68	2.17	7.72	984	94.5
94	0.038	2.073	2.111	13.55	1.95	21.7	1.45	7.59	907	80.0
95	0.014	2.058	2.072	5.45	1.1	21.7	4.51	7.78	999	80.0
96	0.022	2.231	2.253	1.80	ND	19.8	1.41	7.75	938	94.5
97	0.027	2.763	2.790	18.40	7.2	20.45	4.34	7.94	987	94.5
98	0.016	2.079	2.095	15.35	8.3	20.5	1.34	8.01	958	80.0
99	0.022	2.190	2.212	18.15	8.25	21.3	6.53	8.19	940	80.0
100	0.033	2.073	2.106	ND	3.5	22.8	5.78	7.33	9.4	94.5
101	0.022	2.219	2.241	0.70	ND	19.5	0.56	7.29	934	94.5
102	0.033	2.611	2.644	24.75	12.55	21.66	4.15	7.93	975	94.5
103	0.022	2.055	2.077	7.65	ND	20.8	4.3	7.81	888	80.0
104	0.044	2.395	2.438	17.35	5.35	21.93	5.36	7.78	987	65.5
105	0.011	2.377	2.388	21.65	8.25	23	9.09	8.16	9.61	94.5
106	0.022	2.307	2.329	5.85	ND	18.94		7.96	958	80.0
107	0.011	2.629	2.639	7.75	ND	18.78	0.87	8.5	931	94.5
107	0.011	2.816	2.826	10.92	28.83	18.93	1.35	7.85	916	94.5
107	0.011	3.799	3.809	24.25	6.05	20.4	4.99	7.91	931	731.8
108	0.022	2.231	2.253	6.37	ND	21.1	2.59	7.48	921	80.0
109	0.016	2.629	2.645	5.85	ND	22.21	8.21	7.94	1023	94.5

Appendix 3.1 (Continued). Water column parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	NO ₃ mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH	Conduc. mS cm ⁻³	COD mg L ⁻¹
110	0.016	2.044	2.060	8.50	1.45	19.8	2.87	7.62	9.64	94.5
111	0.016	2.079	2.095	0.07	ND	55	2.2	7.54	920	94.5
112	0.022	2.541	2.563	12.00	3.55	21	4.56	7.63	1012	65.5
113	0.016	2.161	2.177	22.55	10.3	22.51	9.29	8.12	1016	80.0
114	0.022	2.044	2.065	14.25	3.95	20	1.65	7.59	994	94.5
115	0.016	2.571	2.587	11.40	ND	21.07	4.37	7.59	1018	108.9
116	0.022	2.079	2.100	3.30	0.05	21.9	4.52	7.65	956	7.5
117	0.022	4.998	5.019	67.58	27	20.84	3.14	7.55	1000	94.5
117	0.022	3.184	3.206	3.90	ND	20.77	2.99	7.48	100	94.5
117	0.022	3.682	3.703	13.95	0.5	20.91	3.02	7.5	1013	94.5
118	0.011	3.214	3.224	12.40	6.3	21.1	1.75	7.58	905	94.5
119	0.038	2.424	2.462	0.40	ND	21.92	7.2	7.86	1012	94.5
120	0.016	2.980	2.996	13.40	4.45	21.75	8.33	8.32	981	108.9
blank	0.016	0.096	0.112	0.05	ND	NA	NA	NA	NA	7.5
blank	0.011	0.131	0.141	0.00	ND	NA	NA	NA	NA	7.5
blank	0.003	0.090	0.092	ND	ND	NA	NA	NA	NA	22.0
blank	0.003	0.107	0.109	ND	ND	NA	NA	NA	NA	7.5
blank	0.003	0.166	0.168	0.05	ND	NA	NA	NA	NA	7.5
Method	EPA 353.2	EPA 351.2	TKN + NO ₃ + NO ₂	Standard Methods 18th Ed. 2540-C	Standard Methods 18th Ed. 2540-E		EPA 360.1	EPA 150.2	EPA 120.1	Standard Methods 18th Ed. 5220 D
Detection Level (mg/L)	0.008	0.1		0.001	0.001					

ND = No detected

NDA = No data available

NA = No applicable

Appendix 3.2. Field Measurements for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type	No. of Throws	Bulk Wet (kg)	Subsample Wet (kg)
1	448	26.651	-80.443	1/6/2004	12:35	0.73	0.75	0.78	0.75	0.55	100%	hydr	1	1.3-2.35	0
2	396	26.655	-80.443	1/5/2004	14:35	0.75	0.8	0.75	0.77	0.75	95%	hydr	1	1.2-6	0
3	426	26.658	-80.443	1/5/2004	1:42	0.79	0.78	0.81	0.79	0.6	30%	hydr	1	1.9	0.64
4	378	26.662	-80.443	1/5/2004	10:10	0.7	0.72	0.74	0.72	0.7	0%		3	0	0
5	441	26.665	-80.443	1/5/2004	4:57	0.95	0.92	0.95	0.94	0.95	80%	hydr	1	2.3	0.22
6	377	26.669	-80.443	1/5/2004	10:00	0.99	0.99	1	0.99	0.99	0%		3	0	0
7	432	26.672	-80.443	1/5/2004	2:37	0.95	0.99	0.93	0.96	0.9	60%	cerato	1	0.48	0.48
8	427	26.675	-80.443	1/5/2004	2:00	0.86	0.87	0.89	0.87	86	10%	najas, hydr	1	1.48	0.2
8	428	26.675	-80.443	1/5/2004		0.89	0.88	0.92	0.90	0.89	10%	hydr	1	1.66	0.38
8	429	26.675	-80.443	1/5/2004		0.86	0.88	0.85	0.86	0.86	10%	hydr	1	0.62	0.62
9	445	26.653	-80.441	1/6/2004	12:25	0.67	0.7	0.73	0.70	0.67	100%	hydr	1	1.4-2.7	0
10	393	26.657	-80.441	1/5/2004	14:15	0.65	0.5	0.5	0.55	0.65	20%	hydr	3	0	0
11	425	26.66	-80.441	1/5/2004	1:30	0.75	0.78	0.79	0.77	0.75	95%	hydr	1	0.46	0.18
12	379	26.663	-80.441	1/5/2004	10:15	0.8	0.85	0.87	0.84	0.8	5%	hydr	3	0	0
13	440	26.667	-80.441	1/5/2004	4:45	0.95	0.98	0.96	0.96	0.95	65%	hydr	1	1.7	0.3
14	376	26.67	-80.441	1/5/2004	9:50	0.94	1.02	1.01	0.99	0.94	5%	hydr	3	0	0
15	431	26.674	-80.441	1/5/2004		0.9	0.85	0.9	0.88	0.9	50%	hydr	1	1.08	0.38
16	397	26.651	-80.439	1/5/2004	14:45	0.67	0.69	0.68	0.68	0.3		hydr	1	.6-1.8	0
16	399	26.651	-80.439	1/5/2004		0.67	0.69	0.68	0.68	0.3		hydr	1	.6-2	0
16	400	26.651	-80.439	1/5/2004		0.67	0.69	0.68	0.68	0.25		hydr	1	.6-1.8	0
17	446	26.655	-80.439	1/6/2004	12:15	0.84	0.82	0.8	0.82	0.25	100%	hydr	1	1.5-2.3	0
18	395	26.658	-80.439	1/5/2004	14:05	0.75	0.74	0.73	0.74	0.75	95%	hydr	1	.6-1.8	0
19	424	26.662	-80.439	1/5/2004	1:15	0.8	0.89	1.04	0.91	0.8	10%	hydr	1	0.22	0.22
20	380	26.665	-80.439	1/5/2004	10:40	0.92	0.94	0.95	0.94	0.92	80%	hydr	1	0.6-1.6	0
20	381	26.665	-80.439	1/5/2004		0.92	0.94	0.95	0.94	0.94	80%	hydr	1	0.6-1.5	0
20	382	26.665	-80.439	1/5/2004		0.92	0.94	0.95	0.94	0.95	80%	hydr	1	0.6-1.8	0
21	436	26.669	-80.439	1/5/2004	4:14	0.99	0.98	1	0.99	0.99	30%	hydr	1	2.2	0.42
21	437	26.672	-80.439	1/5/2004		0.96	0.95	0.9	0.94	0.9	30%	hydr	1	1.9	0.44
21	438	26.675	-80.439	1/5/2004		0.98	0.95	0.99	0.97	0.98	30%	hydr	1	1.5	0.24
22	337	26.653	-80.437	1/5/2004	9:40	0.92	0.94	0.95	0.94	0.92	50%	hydr	1	0.6-1.4	0
23	430	26.657	-80.437	1/5/2004	2:16	0.88	0.86	0.87	0.87	0.7	25%	hydr	1	1.12	0.24

Appendix 3.2 (Continued). Field Measurements for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type	No. of Throws	Bulk Wet (kg)	Subsample Wet (kg)
24	401	26.66	-80.437	1/5/2004	15:15	0.8	0.8	0.8	0.80	0.8	60%	hydr	1	.6-1.2	0
25	444	26.66	-80.437	1/6/2004	12:00	0.6	0.64	0.68	0.64	0.6	5%	hydr	1	.5-2	0
26	394	26.66	-80.437	1/5/2004	13:55	0.75	0.8	0.85	0.80	0.75	8%	hydr	1	.6-2	0
27	423	26.663	-80.437	1/5/2004	1:07	0.71	0.74	0.72	0.72	0.74	10%	hydra	1	0.48	0.48
28	383	26.667	-80.437	1/5/2004	11:00	0.87	0.87	0.95	0.90	0.75	100%	hydr	1	0.6-2.7	0
29	439	26.67	-80.437	1/5/2004	4:34	0.99	1	1	1.00	0.99	5%	hydr	1	1.26	0.28
30	336	26.674	-80.437	1/5/2004	9:39	0.9	0.9	0.95	0.92	0.65	95%	hydr	1	0.4-2	0
31	410	26.651	-80.435	1/6/2004	2:00	0.7	0.74	0.74	0.73	0.7	5%	none	3	0	0
32	402	26.655	-80.435	1/5/2004	15:25	0.95	1.05	1.1	1.03	0.95	20%	cerato	3	0	0
33	375	26.658	-80.435	1/6/2004	11:45	0.85	0.8	0.81	0.82	0.5	5%	hydr	1	.5-2.2	0
34	398	26.662	-80.435	1/5/2004	13:45	0.8	0.8	0.8	0.80	0.8	0%		3	0	0
35	422	26.665	-80.435	1/5/2004	12:56	1	0.98	0.99	0.99	0.8	60%	hydr	1	1.26	0.32
36	384	26.669	-80.435	1/5/2004	11:10	0.95	1	1	0.98	0.95	90%	hydr	1	.6-1.4	0
37	435	26.672	-80.435	1/5/2004	3:52	0.96	0.98	0.96	0.97	0.96	5%	hydr	1	1.52	0.28
38	335	26.675	-80.435	1/5/2004	9:30	0.94	1.05	1	1.00	0.94	95%	majos, ceratc	1	0.4-2.2	0
39	449	26.653	-80.433	1/6/2004		0.7	0.72	0.74	0.72	0.7	5%	hydr	1	1.4-2.65	0
40	403	26.657	-80.433	1/5/2004	15:35	0.65	0.7	0.67	0.67	0.65	10%	hydr	3	0	0
41	447	26.66	-80.433	1/6/2004	11:35	0.71	0.8	0.81	0.77	0.71	70%	hydr	1	0.5-1.8	0
42	392	26.66	-80.433	1/5/2004	13:30	0.8	0.7	0.75	0.75	0.2	100%	hydr	1	.6-2.8	0
43	373	26.663	-80.433	1/6/2004	10:55	0.95	0.97	1	0.97	0.8	90%	hydr	1	.5-1.4	0
44	385	26.667	-80.433	1/5/2004	11:25	0.95	0.95	1.01	0.97	0.92	60%	hydr, ceratc	1	0.6-1.8	0
45	434	26.67	-80.433	1/5/2004	3:42	0.9	0.96	1.1	0.99	0.9	5%	hydr	1	0.9	0.4
46	409	26.651	-80.431	1/6/2004	2:15	0.85	0.7	0.7	0.75	0.4	100%	hydr	1	1.5-3.3	0
47	450	26.655	-80.431	1/6/2004	1:35	0.72	0.76	0.76	0.75	0.72	20%	cerato, hydr	1	1.7-3.9	0
48	404	26.658	-80.431	1/5/2004	15:45	0.75	0.8	0.76	0.77	0.3	100%	hydr	1	.6-1.9	0
49	374	26.662	-80.431	1/6/2004	11:25	0.95	0.85	0.83	0.88	0.80	100%	hydr	1	0.5-1.45	0
50	391	26.665	-80.431	1/5/2004	13:20	0.97	0.9	1	0.96	0.97	20%	hydr, ceratc	1	.6-1.8	0
51	421	26.669	-80.431	1/5/2004	12:37	1.02	1.07	1.01	1.03	1.02	60%	hydr	1	1.62	0.38
52	386	26.672	-80.431	1/5/2004	11:40	0.95	0.95	0.95	0.95	0.55	100%	hydr	1	.6-2	0
52	387	26.672	-80.431	1/5/2004		0.95	0.95	0.95	0.95	0.45	100%	hydr	1	.6-2.1	0
52	388	26.672	-80.431	1/5/2004		0.95	0.95	0.95	0.95	0.47	100%	hydr	1	.6-1.7	0
53	433	26.675	-80.431	1/5/2004	3:30	0.97	0.99	1	0.99	0.97	95%	hydr	1	1.08	0.2
54	408	26.653	-80.429	1/6/2004	2:30	0.68	0.73	0.75	0.72	0.6	100%	hydr	1	1.5-3.5	0
55	412	26.657	-80.429	1/6/2004	1:20	0.68	0.75	0.85	0.76	0.3	50%	hydr	1	1.4-3.3	0
56	405	26.66	-80.429	1/5/2004	15:15	0.8	0.85	0.8	0.82	0.35	95%	hydr	1	.6-2	0

Appendix 3.2 (Continued). Field Measurements for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type	No. of Throws	Bulk Wet (kg)	Subsample Wet (kg)
57	442	26.663	-80.429	1/5/2004	5:06	0.86	0.85	0.87	0.86	0.8	100%	hydr	1	1.54	0.22
58	390	26.667	-80.429	1/5/2004	13:05	0.92	0.94	1	0.95	0.92	0%		3	0	0
59	420	26.67	-80.429	1/5/2004	12:07	0.98	0.99	0.99	0.99	0.98	0%	Cerato, hydr	1	0.22	0.22
60	389	26.674	-80.429	1/5/2004	12:50	0.95	0.92	0.95	0.94	0.9	100%	hydr	1	.6-2.3	0
61	325	26.662	-80.427	1/4/2004	3:40	0.8	0.86	0.78	0.81	bottom	75%	hydr	1	1.8	0
62	368	26.665	-80.427	1/4/2004	4:36	0.95	0.95	0.95	0.95	0.37	100%	hydr	1	1.74	0.38
63	326	26.668	-80.427	1/4/2004	4:00	0.89	0.91	0.92	0.91	0.84	5%	hydr	3	0	0
64	419	26.672	-80.427	1/5/2004	11:56	1.06	0.65	0.85	0.85	0.85	30%	hydr	1	0.12	0.12
65	333	26.675	-80.427	1/4/2004	5:22	0.45	0.46	0.48	0.46	bottom	50%	cattails	3	0	0
66	366	26.66	-80.425	1/4/2004	4:22	0.84	0.91	0.84	0.86	0.55	30%	hydr	1	2.42	0.76
67	324	26.663	-80.425	1/4/2004	3:25	0.83	0.86	0.84	0.84	bottom	5%	hydr	3	0	0
68	369	26.667	-80.425	1/4/2004	4:50	0.95	0.95	0.95	0.95	0.35	80%	hydr	1	2.66	0.56
69	327	26.67	-80.425	1/4/2004	4:10	0.85	0.84	0.87	0.85	bottom	35%	hydr	1	2.4	0
69	328	26.67	-80.425	1/4/2004		0.85	0.84	0.87	0.85	bottom	35%	hydr	1	0.4	0
69	329	26.67	-80.425	1/4/2004		0.85	0.84	0.87	0.85	bottom	35%	hydr	1	1.8	0
70	418	26.674	-80.425	1/5/2004	11:45	0.98	1	1	0.99	0.98	5%	hydr,	1	0.48	0.48
71	367	26.662	-80.424	1/4/2004	3:43	0.85	0.87	0.9	0.87	0.55	0%	Cerato	3	0.26	0.26
72	323	26.665	-80.424	1/4/2004	3:15	0.9	0.91	0.91	0.91	0.45	0%		3	0	0
73	370	26.668	-80.424	1/4/2004	4:59	0.96	0.95	0.95	0.95	0.8		hydr	1	1.52	0.54
74	330	26.672	-80.424	1/4/2004	4:35	0.98	0.99	0.97	0.98	bottom	5%	hydr	3	0	0
75	415	26.675	-80.424	1/5/2004	11:20	1	1	1	1.00	1	0%	hydr	3	0.1	0.1
75	416	26.675	-80.424	1/5/2004	11:30	1	1	0.99	1.00	1	0%	hydr	3	0.04	0.04
75	417	26.675	-80.424	1/5/2004	11:35	1	0.99	0.99	0.99	0.98	0%	hydr	3	0.02	0.02
76	303	26.66	-80.422	1/4/2004	9:40	0.78	0.77	0.77	0.77	bottom	15%	hydr	3	0	0
77	363	26.663	-80.422	1/4/2004	3:24	0.9	0.85	0.9	0.88	0.45	100%	Hyrdilla	1	2.68	0.82
77	364	26.663	-80.422	1/4/2004		0.85	0.88	0.9	0.88	0.65	100%	hydr	1	2.06	0.52
77	365	26.663	-80.422	1/4/2004		0.85	0.86	0.8	0.84	0.75	100%	Hyrdilla	1	2.84	0.56
78	322	26.667	-80.422	1/4/2004	2:55	0.85	0.86	0.85	0.85	bottom	5%	hydr	3	0	0
79	371	26.67	-80.422	1/4/2004	5:09	0.91	0.91	0.93	0.92	0.7		hydr	1	1.54	0.62
80	331	26.674	-80.422	1/4/2004	4:45	0.95	0.91	0.97	0.94	0.87	80%	hydr	1	2.2	0
81	304	26.662	-80.42	1/4/2004	10:12	0.69	0.74	0.72	0.72	0.74	5%	hydr	3	0	0
81	305	26.662	-80.42	1/4/2004		0.69	0.74	0.72	0.72	0.72	5%	hydr	3	0	0
81	306	26.662	-80.42	1/4/2004		0.69	0.74	0.72	0.72	0.69	5%	hydr	3	0	0

Appendix 3.2 (Continued). Field Measurements for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type	No. of Throws	Bulk Wet (kg)	Subsample Wet (kg)
82	362	26.665	-80.42	1/4/2004	3:13	0.95	1	0.98	0.98	0.25	0%	Hyrdilla	3		
83	321	26.668	-80.42	1/4/2004	2:35	0.95	0.93	0.94	0.94	bottom	5%	hydr	3	0	0
84	372	26.672	-80.42	1/5/2004	10:10	0.87	0.88	0.87	0.87	0.8	40%	hydr	1	0.54	0.24
85	332	26.675	-80.42	1/4/2004	5:00	0.77	0.74	0.75	0.75	bottom	50%	hydr	1	2.1	0
86	341	26.66	-80.418	1/4/2004		0.79	0.8	0.81	0.80	0.81		Hyrdilla	1	2.18	0.38
87	307	26.663	-80.418	1/4/2004	10:55	0.7	0.72	0.72	0.71	0.65	70%	hydr	1	2.4	0
88	361	26.667	-80.418	1/4/2004	2:53	0.87	0.85	0.87	0.86	0.87	25%	Hyrdilla	1	1.64	0.42
89	318	26.67	-80.418	1/4/2004	2:15	0.89	0.92	0.9	0.90	0.66	100%	hydr	3	2	0
89	319	26.67	-80.418	1/4/2004		0.89	0.92	0.9	0.90	0.63	100%	hydr	3	1.9	0
89	320	26.67	-80.418	1/4/2004		0.89	0.92	0.9	0.90	0.56	100%	hydr	3	1.6	0
90	413	26.674	-80.418	1/5/2004	10:49	0.88	0.86	0.9	0.88	0.75	100%	hydr	1	1.84	0.24
91	342	26.662	-80.416	1/4/2004		0.76	0.75	0.75	0.75	0.75		Hyrdilla	1	1.24	0.44
92	308	26.665	-80.416	1/4/2004	11:10	0.84	0.85	0.83	0.84	0	95-100%	hydr	1	3.5	0
93	360	26.668	-80.416	1/4/2004	2:40	0.85	0.84	0.86	0.85	0.3	75%	hydr	1	3	0.46
94	317	26.672	-80.416	1/4/2004	1:50	0.94	0.95	0.84	0.91	0.56	100%	hydr	1	4	0
95	414	26.675	-80.416	1/5/2004	11:10	0.92	0.95	0.95	0.94	0.75	100%	hydr	1	0.32	0.32
96	302	26.66	-80.414	1/4/2004	9:25	0.77	0.75	0.76	0.76	0.7	95%	hydr	1	3	0
97	343	26.663	-80.414	1/4/2004		0.8	0.83	0.83	0.82	0.7		corntoph,hydr,p	1	2.05	0.5
98	309	26.667	-80.414	1/4/2004	11:20	0.83	0.79	0.9	0.84	0.51	95-100%	hydr	1	2.6	0
99	359	26.670	-80.414	1/4/2004	2:31	0.84	0.89	0.88	0.87	0.79	90%	hydr	1	2.74	0.56
100	316	26.674	-80.414	1/4/2004	1:40	0.69	0.7	0.86	0.75	0.39	100%	lettuce, p	1	3.3	0
101	301	26.662	-80.412	1/4/2004	9:04	0.79	0.77	0.81	0.79	0.58	95%	hydr	1	.6-2.1	0
102	344	26.665	-80.412	1/4/2004	11:13	0.73	0.74	0.75	0.74			Hyrdilla	1	2.78	0.34
103	310	26.668	-80.412	1/4/2004	12:00	0.94	0.93	0.91	0.93	0.89	5%	cerato	3	0	0
104	357	26.672	-80.412	1/4/2004	2:17	0.84	0.79	0.78	0.80	0.79	20%	Hyrdilla	1	0.86	0.86
105	315	26.675	-80.412	1/4/2004	1:25	0.8	0.76	0.75	0.77	bottom	60%	hydr	1	2.15	0
106	338	26.663	-80.41	1/4/2004		0.65	0.65	0.68	0.66	0.32	90%	Hyrdilla	1	2.2	0.24

Appendix 3.2 (Continued). Field Measurements for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type	No. of Throws	Bulk Wet (kg)	Subsample Wet (kg)
107	345	26.667	-80.41	1/4/2004	11:28	0.67	0.68	0.69	0.68	0.67	100%	Hyrdilla	1	2.02	0.38
107	346	26.667	-80.41	1/4/2004		0.69	0.71	0.71	0.70	0.6	100%	Hyrdilla	1	1.96	0.42
107	347	26.667	-80.41	1/4/2004		0.7	0.69	0.72	0.70	0.45	100%	Hyrdilla	1	2.28	0.38
108	311	26.67	-80.41	1/4/2004	12:10	0.71	0.74	0.74	0.73	bottom	100%	cerato, hydr	1	2.4	0
109	356	26.674	-80.41	1/4/2004	2:03	0.85	0.83	0.84	0.84	0.6	10%	Ir,cerato,pi	1	0.46	0.46
110	340	26.665	-80.408	1/4/2004		0.84	0.84	0.81	0.83	0.84		none	3	0	0
111	348	26.668	-80.408	1/4/2004	11:58	0.86	0.85	0.85	0.85	0.85	5%	eratophy, hy	1	0.06	0.06
112	312	26.672	-80.408	1/4/2004	12:25	0.82	0.82	0.8	0.81	0.48	5%	hydr, water	3	0	0
113	355	26.675	-80.408	1/4/2004	1:50	0.8	0.8	0.78	0.79	0.8	0%	Hyrdilla	1	0.62	0.62
114	339	26.667	-80.406	1/4/2004		0.55	0.5	0.44	0.50		35%	erstophyllu	1	0.94	0.48
115	349	26.67	-80.406	1/4/2004	12:50	0.76	0.75	0.75	0.75	0.75	5%	a,hydr,cerat	1	1.04	0.36
116	313	26.674	-80.406	1/4/2004	12:35	0.71	0.74	0.71	0.72	bottom	50%	cerato, hydr	1	2.2	0
117	350	26.672	-80.404	1/4/2004	1:08	0.7	0.72	0.72	0.71	0.7	20%	ea,cerato,al	1	1.22	0.42
117	351	26.672	-80.404	1/4/2004		0.68	0.73	0.73	0.71	0.73	20%	none	3		
117	352	26.672	-80.404	1/4/2004		0.73	0.73	0.73	0.73	0.73	20%	hydr,cerato	1	1.78	0.52
118	314	26.675	-80.404	1/4/2004	12:55	0.69	0.66	0.65	0.67	0.43	100%	hydr	1	2.2	0
119	353	26.674	-80.402	1/4/2004	1:28	0.65	0.68	0.66	0.66		100%	Hydr	1	2.06	0.48
120	354	26.675	-80.401	1/4/2004	1:38	0.61	0.68	0.65	0.65	0.55	100%	Hydr	1	2.86	0.58
blank	334			1/4/2004	5:38										
blank	358	NA	NA	1/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
blank	406	NA	NA	1/5/2004	14:00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
blank	407	NA	NA	1/5/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
blank	411	NA	NA	1/6/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix 3.3. Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
1	448	26.651	-80.443	1/6/2004	12:35	H	9.39	0.58	2077	25.2	330
2	396	26.655	-80.443	1/5/2004	14:35	H	2.40	0.16	1397	25.0	338
3	426	26.658	-80.443	1/5/2004	1:42	H	7.60	0.56	1654	21.9	309
4	378	26.662	-80.443	1/5/2004	10:10	none	0	0	0	0	0
5	441	26.665	-80.443	1/5/2004	4:57	H	9.20	BD	1390	19.9	307
6	377	26.669	-80.443	1/5/2004	10:00	none	0	0	0	0	0
7A	432	26.672	-80.443	1/5/2004	2:37	C	1.59	0.12	2538	25.6	282
7B	432	26.672	-80.443	1/5/2004	2:37	H	0.33	BD	NDA	NDA	NDA
8-1	427	26.675	-80.443	1/5/2004	2:00	H	5.92	0.45	1139	18.5	317
8-2	428	26.675	-80.443	1/5/2004		H	6.64	0.53	1098	18.3	314
8-3	429	26.675	-80.443	1/5/2004		H	2.48	0.26	1052	16.4	340
9	445	26.653	-80.441	1/6/2004	12:25	H	10.79	0.72	2015	23.8	323
10	393	26.657	-80.441	1/5/2004	14:15	H	0.30	0.02	2738	31.5	352
11	425	26.66	-80.441	1/5/2004	1:30	H	1.84	0.13	1938	24.9	349
12	379	26.663	-80.441	1/5/2004	10:15	H	0.024	BD	1423	20.4	251
13	440	26.667	-80.441	1/5/2004	4:45	H	6.80	0.50	1349	19.9	316
14	376	26.67	-80.441	1/5/2004	9:50	H	0.089	0.003	2196	30.4	298
15	431	26.674	-80.441	1/5/2004		H	4.32	0.20	1355	22.7	318
16-1	397	26.651	-80.439	1/5/2004	14:45	H	4.80	0.25	2852	30.2	324
16-2	399	26.651	-80.439	1/5/2004		H	5.60	0.32	2508	30.0	338
16-3	400	26.651	-80.439	1/5/2004		H	4.80	0.30	2449	62.3	320
17	446	26.655	-80.439	1/6/2004	12:15	H	9.19	0.45	2795	27.3	310
18	395	26.658	-80.439	1/5/2004	14:05	H	4.80	0.32	1745	24.9	303
19	424	26.662	-80.439	1/5/2004	1:15	H	0.88	0.07	2035	25.9	290

Appendix 3.3 (Continued). Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet		Total P	Total N	Total C
							weight kg m ⁻²	Dry weight kg m ⁻²			
20-1	380	26.665	-80.439	1/5/2004	10:40	H	4.00	0.31	1415	23.2	348
20-2	381	26.665	-80.439	1/5/2004		H	3.60	0.28	1533	22.4	349
20-3	382	26.665	-80.439	1/5/2004		H	4.80	0.35	3395	22.6	331
21	436	26.669	-80.439	1/5/2004	4:14	H	8.80	0.63	1237	86.3	332
21	437	26.672	-80.439	1/5/2004		H	7.60	0.62	1294	19.8	292
21	438	26.675	-80.439	1/5/2004		H	6.00	0.44	1369	35.0	341
22	337	26.653	-80.437	1/5/2004	9:40	H	3.20	0.32	1019	20.4	380
23	430	26.657	-80.437	1/5/2004	2:16	H	4.48	0.13	1662	23.0	330
24	401	26.66	-80.437	1/5/2004	15:15	H	2.40	0.21	1792	108.1	361
25	444	26.66	-80.437	1/6/2004	12:00	H	6.00	0.36	2844	31.7	317
26	394	26.66	-80.437	1/5/2004	13:55	H	5.60	0.42	1868	21.9	312
27	423	26.663	-80.437	1/5/2004	1:07	H	1.92	0.17	2467	27.7	309
28	383	26.667	-80.437	1/5/2004	11:00	H	8.40	0.57	3280	28.2	323
29	439	26.67	-80.437	1/5/2004	4:34	H	5.04	BD	2021	48.1	337
30	336	26.674	-80.437	1/5/2004	9:39	H	6.40	0.09	1568	23.1	351
31	410	26.651	-80.435	1/6/2004	2:00	none	0	0	0	0	0
32	402	26.655	-80.435	1/5/2004	15:25	H	0.28	0.01	2509	55.6	344
33	375	26.658	-80.435	1/6/2004	11:45	H	6.80	0.41	2441	30.4	343
34	398	26.662	-80.435	1/5/2004	13:45	none	0	0	0	0	0
35	422	26.665	-80.435	1/5/2004	12:56	H	5.04	0.39	1692	21.3	348
36	384	26.669	-80.435	1/5/2004	11:10	H	3.20	0.25	1471	23.6	327
37	435	26.672	-80.435	1/5/2004	3:52	H	6.08	0.53	1343	21.4	324
38	335	26.675	-80.435	1/5/2004	9:30	N	7.20	0.53	1845	20.2	286
39	449	26.653	-80.433	1/6/2004		H	10.59	0.72	1377	18.2	250
40	403	26.657	-80.433	1/5/2004	15:35	H	0.09	0.01	2244	24.6	310
41	447	26.66	-80.433	1/6/2004	11:35	H	7.20	0.48	2631	22.4	289
42	392	26.66	-80.433	1/5/2004	13:30	H	8.80	0.46	3348	30.2	302

Appendix 3.3 (Continued). Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight		Total P	Total N	Total C
							kg m ⁻²	kg m ⁻²			
43	373	26.663	-80.433	1/6/2004	10:55	H	3.60	0.29	1645	19.5	286
44	385	26.667	-80.433	1/5/2004	11:25	H	4.80	0.33	1844	21.2	315
45	434	26.67	-80.433	1/5/2004	3:42	H	3.60	0.21	1639	25.0	318
46	409	26.651	-80.431	1/6/2004	2:15	H	13.20	0.73	2349	27.9	344
47A	450	26.655	-80.431	1/6/2004	1:35	H	7.62	0.95	2802	31.3	332
47B	450	26.655	-80.431	1/6/2004	1:35	C	7.97	1.04	2770	27.2	303
48	404	26.658	-80.431	1/5/2004	15:45	H	5.20	0.30	2636	26.6	310
49	374	26.662	-80.431	1/6/2004	11:25	H	3.80	0.15	1825	24.9	338
50A	391	26.665	-80.431	1/5/2004	13:20	C	0.59	0.03	2884	22.6	323
50B	391	26.665	-80.431	1/5/2004	13:20	H	4.21	0.25	2168	29.4	313
51	421	26.669	-80.431	1/5/2004	12:37	H	6.48	0.46	1884	23.1	319
52-1	386	26.672	-80.431	1/5/2004	11:40	H	5.60	0.31	2993	24.8	324
52-2	387	26.672	-80.431	1/5/2004		H	6.00	0.33	2984	28.4	326
52-3	388	26.672	-80.431	1/5/2004		H	4.40	0.26	2032	23.5	331
53	433	26.675	-80.431	1/5/2004	3:30	H	4.32	0.59	1706	19.6	294
54	408	26.653	-80.429	1/6/2004	2:30	H	14.00	0.81	2123	27.0	303
55	412	26.657	-80.429	1/6/2004	1:20	H	13.20	BD	NDA	NDA	NDA
56	405	26.66	-80.429	1/5/2004	15:15	H	5.60	0.21	NDA	NDA	NDA
57	442	26.663	-80.429	1/5/2004	5:06	H	6.16	BD	NDA	NDA	NDA
58	390	26.667	-80.429	1/5/2004	13:05	none	0	0	0	0	0
59A	420	26.67	-80.429	1/5/2004	12:07	C	0.35	0.09	3424	32.1	338
59B	420	26.67	-80.429	1/5/2004	12:07	H	0.53	0.11	2858	31.9	327
60	389	26.674	-80.429	1/5/2004	12:50	H	6.80	BD	3172	28.2	315
61	325	26.662	-80.427	1/4/2004	3:40	H	4.80	0.28	2527	29.4	336
62	368	26.665	-80.427	1/4/2004	4:36	H	6.96	0.17	2064	24.8	311
63	326	26.668	-80.427	1/4/2004	4:00	H	0.41	0.01	2708	27.8	320

Appendix 3.3 (Continued). Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
64	419	26.672	-80.427	1/5/2004	11:56	H	0.48	BD	NDA	NDA	NDA
65	333	26.675	-80.427	1/4/2004	5:22	none	0	0	0	0	0
66	366	26.66	-80.425	1/4/2004	4:22	H	9.68	0.32	2401	27.8	339
67	324	26.663	-80.425	1/4/2004	3:25	H	0.08	0.01	2455	27.8	365
68	369	26.667	-80.425	1/4/2004	4:50	H	10.64	0.95	2540	28.6	299
69-1	327	26.67	-80.425	1/4/2004	4:10	H	7.20	0.43	2746	38.8	341
69-2	328	26.67	-80.425	1/4/2004		H	1.60	0.07	3405	77.1	343
69-3	329	26.67	-80.425	1/4/2004		H	4.80	0.27	2825	164.0	340
70	418	26.674	-80.425	1/5/2004	11:45	H	1.92	0.04	NDA	NDA	NDA
71A	367	26.662	-80.424	1/4/2004	3:43	H	0.46	BDL	NDA	NDA	NDA
71B	367	26.662	-80.424	1/4/2004	3:43	C	0.58	BDL	NDA	NDA	NDA
72	323	26.665	-80.424	1/4/2004	3:15	none	0	0	0	0	0
73	370	26.668	-80.424	1/4/2004	4:59	H	6.08	0.30	1720	25.0	318
74	330	26.672	-80.424	1/4/2004	4:35	H	0.01	BD	2253	72.5	315
75	415	26.675	-80.424	1/5/2004	11:20	H	0.40	BD	NDA	NDA	NDA
75	416	26.675	-80.424	1/5/2004	11:30	H	0.16	BD	NDA	NDA	NDA
75	417	26.675	-80.424	1/5/2004	11:35	H	0.08	BD	NDA	NDA	NDA
76	303	26.66	-80.422	1/4/2004	9:40	H	0.04	0.003	2259	26.2	322
77-1	363	26.663	-80.422	1/4/2004	3:24	H	10.72	0.77	1943	26.3	343
77-2	364	26.663	-80.422	1/4/2004		H	8.24	0.48	2206	27.5	324
77-3	365	26.663	-80.422	1/4/2004		H	11.36	0.26	1615	21.4	298
78	322	26.667	-80.422	1/4/2004	2:55	none	0	0	0	0	0
79	371	26.67	-80.422	1/4/2004	5:09	H	6.16	0.27	2872	28.5	291
80	331	26.674	-80.422	1/4/2004	4:45	H	6.40	0.43	1591	23.2	311

Appendix 3.3 (Continued). Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
81-1	304	26.662	-80.42	1/4/2004	10:12	H	0.15	0.005	2659	30.3	374
81-2	305	26.662	-80.42	1/4/2004		H	0.15	0.006	1804	23.5	404
81-3	306	26.662	-80.42	1/4/2004		H	1.90	0.007	2231	59.3	377
82	362	26.665	-80.42	1/4/2004	3:13	none	0	0	0	0	0
83	321	26.668	-80.42	1/4/2004	2:35	H	0.06	0.003	2325	31.0	334
84	372	26.672	-80.42	1/5/2004	10:10	H	2.16	0.19	2376	22.3	254
85	332	26.675	-80.42	1/4/2004	5:00	H	6.00	0.40	1789	22.3	274
86	341	26.66	-80.418	1/4/2004		H	8.72	0.56	1259	21.9	335
87	307	26.663	-80.418	1/4/2004	10:55	H	7.20	0.40	3222	91.9	324
88	361	26.667	-80.418	1/4/2004	2:53	H	6.56	0.48	1530	24.4	337
89-1	318	26.67	-80.418	1/4/2004	2:15	H	5.60	0.36	2511	25.7	351
89-2	319	26.67	-80.418	1/4/2004		H	5.20	0.37	2788	30.0	302
89-3	320	26.67	-80.418	1/4/2004		H	4.00	0.28	2162	24.5	310
90	413	26.674	-80.418	1/5/2004	10:49	H	7.36	0.40	2517	25.5	316
91	342	26.662	-80.416	1/4/2004		H	4.96	0.32	2006	29.0	346
92	308	26.665	-80.416	1/4/2004	11:10	H	11.60	0.74	2151	26.1	332
93	360	26.668	-80.416	1/4/2004	2:40	H	12.00	0.80	1824	23.0	294
94	317	26.672	-80.416	1/4/2004	1:50	H	13.60	0.73	2690	26.6	325
95	414	26.675	-80.416	1/5/2004	11:10	H	1.28	0.06	1710	21.6	282
96	302	26.66	-80.414	1/4/2004	9:25	H	9.60	0.58	2216	25.8	347
97A	343	26.663	-80.414	1/4/2004		H	3.27	0.09	2083	24.8	337
97B	343	26.663	-80.414	1/4/2004		C	2.59	0.14	3374	30.6	357
97C	343	26.663	-80.414	1/4/2004		WL	2.34	0.12	2162	22.8	329
98	309	26.667	-80.414	1/4/2004	11:20	H	8.00	0.54	2024	23.4	303
99	359	26.670	-80.414	1/4/2004	2:31	H	10.96	0.72	2431	24.3	336

Appendix 3.3 (Continued). Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
100	316	26.674	-80.414	1/4/2004	1:40	WL	10.80	0.59	3453	31.6	346
101	301	26.662	-80.412	1/4/2004	9:04	H	6.00	0.14	2511	24.7	317
102	344	26.665	-80.412	1/4/2004	11:13	H	11.12	0.68	2679	31.9	344
103	310	26.668	-80.412	1/4/2004	12:00	H	0.006	BD	4679	43.8	385
104	357	26.672	-80.412	1/4/2004	2:17	H	3.44	0.24	2270	23.8	267
105	315	26.675	-80.412	1/4/2004	1:25	H	6.20	0.49	1698	20.6	289
106	338	26.663	-80.41	1/4/2004		H	8.80	0.50	2798	29.6	337
107-1	345	26.667	-80.41	1/4/2004	11:28	H	8.08	0.57	2054	24.4	344
107-2	346	26.667	-80.41	1/4/2004		H	7.84	0.49	2149	24.8	341
107-3	347	26.667	-80.41	1/4/2004		H	9.12	0.52	2046	25.6	362
108	311	26.67	-80.41	1/4/2004	12:10	H	7.20	BD	2500	27.5	312
109A	356	26.674	-80.41	1/4/2004	2:03	H	1.36	0.081	3217	31.9	336
109B	356	26.674	-80.41	1/4/2004	2:03	C	0.41	0.017	4294	33.7	357
109C	356	26.674	-80.41	1/4/2004	2:03	P	0.072	0.002	2536	24.2	304
110	340	26.665	-80.408	1/4/2004		none	0	0	0	0	0
111A	348	26.668	-80.408	1/4/2004	11:58	H	2.32	0.006	3065	33.1	367
111B	348	26.668	-80.408	1/4/2004	11:58	C	0.08	0.003	2433	34.1	401
112	312	26.672	-80.408	1/4/2004	12:25	H	0.018	BD	2823	36.5	381
113	355	26.675	-80.408	1/4/2004	1:50	H	2.48	0.20	1900	21.8	332
114	339	26.667	-80.406	1/4/2004		C	3.76	0.21	3437	32.6	318
115A	349	26.67	-80.406	1/4/2004	12:50	H	1.11	0.065	2993	33.3	363
115B	349	26.67	-80.406	1/4/2004	12:50	C	2.12	0.007	4380	43.3	339
115C	349	26.67	-80.406	1/4/2004	12:50	P	0.93	0.058	3890	30.4	344
116	313	26.674	-80.406	1/4/2004	12:35	H	6.40	0.53	NDA	21.4	265

Appendix 3.3 (Continued). Vegetation parameters for the sampling on January'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
117-1A	350	26.672	-80.404	1/4/2004	1:08	H	1.19	0.18	3293	30.8	344
117-1B	350	26.672	-80.404	1/4/2004	1:08	C	1.44	0.21	3708	31.9	360
117-1C	350	26.672	-80.404	1/4/2004	1:08	P	2.25	0.24	3370	27.2	349
117-2	351	26.672	-80.404	1/4/2004		none	0	0	0	0	0
117-3A	352	26.672	-80.404	1/4/2004		H	1.64	0.08	3059	29.5	372
117-3B	352	26.672	-80.404	1/4/2004		C	2.42	0.14	2933	27.5	350
117-3C	352	26.672	-80.404	1/4/2004		P	3.06	0.15	4192	32.8	363
118-1	314	26.675	-80.404	1/4/2004	12:55	H	6.40	0.38	2771	28.3	319
119	353	26.674	-80.402	1/4/2004	1:28	H	8.24	0.47	3667	29.2	331
120	354	26.675	-80.401	1/4/2004	1:38	H	11.44	0.65	2891	26.6	341

Method	Carlo	Carlo	Carlo
	Erba NA	Erba NA	Erba NA
	1500 Ins.	1500 Ins.	1500 Ins.
	Manual	Manual	Manual

Detection	0.002	0.003	0.015
Level			

NDA = No data available

BD = Below detection limit

H = Hydrilla	N = Najas	P = Pistea
HC = Hydrocotille	WH = Water Hyacinth	
C = Ceratophyllum	WL = Water Lettuce	

Appendix 4.1. Water column Parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample Date	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹	NH4 mg N L ⁻¹	NO3 mg N L ⁻¹
3	475	26.658	-80.443	2/4/2004	0.016	0.035	0.054	139	196	0.109	0.099
6	476	26.669	-80.443	2/4/2004	0.007	0.019	0.032	117	192	0.109	0.148
8	479	26.675	-80.443	2/4/2004	0.004	0.019	0.053	130	184	0.027	0.078
13	473	26.667	-80.441	2/4/2004	0.007	0.018	0.043	130	208	0.072	0.608
14	467	26.67	-80.441	2/3/2004	0.010	0.025	0.047	132	198	0.207	0.208
21	474	26.669	-80.439	2/4/2004	0.008	0.022	0.035	115	192	0.064	0.121
22	466	26.672	-80.439	2/3/2004	0.013	0.033	0.052	132	196	0.170	0.126
27	468	26.663	-80.437	2/3/2004	0.013	0.032	0.123	123	192	0.086	0.175
37	470	26.672	-80.435	2/4/2004	0.019	0.037	0.054	120	184	0.252	0.186
37	471	26.672	-80.435	2/4/2004	0.021	0.038	0.070	117	188	0.130	0.121
37	472	26.672	-80.435	2/4/2004	0.021	0.046	0.051	117	192	0.150	1.130
38	465	26.675	-80.435	2/3/2004	0.008	0.024	0.046	126	180	0.081	0.175
65	464	26.675	-80.427	2/3/2004	0.013	0.027	0.070	137	184	0.079	0.083
73	463	26.668	-80.424	2/3/2004	0.013	0.029	0.043	121	184	0.108	0.105
84	462	26.672	-80.42	2/3/2004	0.024	0.040	0.063	112	N/A	0.121	0.197
89	461	26.67	-80.418	2/3/2004	0.015	0.030	0.055	126	184	0.067	0.121
104	457	26.672	-80.412	2/3/2004	0.043	0.062	0.119	179	208	0.337	0.348
108	458	26.67	-80.41	2/3/2004	0.052	0.071	0.096	151	196	0.253	0.262
109	456	26.674	-80.41	2/3/2004	0.038	0.057	0.077	162	208	0.255	0.327
111	451	26.668	-80.408	2/3/2004	0.040	0.072	0.081	187	204	0.246	0.218
112	459	26.672	-80.408	2/3/2004	0.038	0.060	0.142	198	222	0.289	0.381
113	455	26.675	-80.408	2/3/2004	0.016	0.035	0.164	162	208	0.099	0.218
117	452	26.672	-80.404	2/3/2004	0.037	0.054	0.076	187	216	0.214	0.327
117	453	26.672	-80.404	2/3/2004	0.037	0.054	0.082	185	220	0.214	0.359
117	454	26.672	-80.404	2/3/2004	0.037	0.057	0.085	193	216	0.254	0.386
121	477	26.670	-80.444	2/4/2004	0.010	0.032	0.234	134	192	0.076	0.115
122	478	26.672	-80.443	2/4/2004	0.007	0.022	0.038	120	184	0.054	0.197
124	460	26.671	-80.443	2/3/2004	0.030	0.052	0.229	150	180	0.149	0.208
blank	469	NA	NA	2/4/2004	0.005	<0.003	<0.003	25	3	0.002	0.023
blank	480	NA	NA	2/4/2004	0.005	<0.003	<0.003	25	3	0.033	0.018

Method	EPA 365.2	EPA 365.2	EPA 365.2	EPA 350.1	EPA 353.2
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Detection Level (mg/L)	0.002	0.003	0.003	0.019	0.008
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BD = Below detection

NDA = No data available

Appendix 4.1 (continued). Water column Parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	DO mg L ⁻¹	Temp °C	pH	Conduc. mS cm ⁻³	Ca mg L ⁻¹	Mg mg L ⁻¹	COD mg L ⁻¹
3	2.289	2.389	3.0	3.0	6.78	22.8	8.56	919	73.70	26.34	97.6
6	2.042	2.190	1.0	2.5	6.47	22.6	8.41	889	76.80	23.95	91.5
8	2.073	2.150	8.5	5.5	10.92	23.6	8.84	854	73.00	23.52	100.6
13	2.259	2.867	6.5	3.5	7.89	21.6	8.32	908	78.00	26.74	97.6
14	2.166	2.373	2.0	3.0	4.95	22.4	8.14	854	75.10	24.07	97.6
21	2.104	2.224	3.5	4.0	5.88	22	8.43	847	77.30	24.35	70.2
22	2.197	2.323	2.5	3.0	6.37	22	8.03	835	75.10	23.5	94.5
27	3.002	3.177	22.3	16.2	5.03	21.2	7.99	840	73.90	24.01	100.6
37	1.887	2.073	1.0	1.5	3.52	20.5	8.12	776	77.60	23.15	82.4
37	1.949	2.070	2.0	2.0	2.71	20.4	8.21	791	76.50	22.96	97.6
37	1.918	3.047	5.0	4.5	3.63	20.7	8.22	794	77.60	23.25	97.6
38	1.949	2.124	1.5	1.5	7.76	22.6	8.39	801	70.50	22.09	67.2
65	1.794	1.877	6.5	6.0	4.7	22	7.58	843	75.10	21.87	67.2
73	2.011	2.115	3.5	3.0	4.53	21	7.72	773	73.90	22.16	70.2
84	1.856	2.052	4.0	3.0	4.88	21.4	7.43	818	80.70	22.56	94.5
89	1.825	1.946	2.5	3.0	4.07	21.5	8.11	797	75.30	22	70.2
104	2.382	2.731	20.0	13.0	2.73	20.1	7.56	856	84.40	23.77	97.6
108	2.382	2.644	2.5	3.0	1.33	19.9	7.58	812	81.40	23.47	97.6
109	2.259	2.585	3.0	2.5	3.12	20.1	7.59	839	84.50	24.09	82.4
111	3.959	4.178	3.0	3.0	1.03	19	7.17	832	82.3	24.03	97.6
112	3.188	3.569	65.0	36.0	3.96	20.9	7.56	930	90.70	25.08	21.6
113	3.188	3.407	56.0	27.0	3.16	19.5	7.53	842	83.70	23.8	70.2
117	2.320	2.647	2.9	3.3	2.72	19.7	6.42	872	86.40	24.05	97.6
117	2.506	2.866	10.8	6.9	2.85	19.6	6.37	874	86.30	24.25	97.6
117	2.537	2.924	4.0	2.5	2.85	19.7	6.37	877	87.80	24.31	94.5
121	3.405	3.521	12.0	8.0	5.47	22.6	8.49	851	75.30	24.38	100.6
122	2.104	2.300	2.5	3.5	11.12	23.6	8.48	854	76.90	23.93	97.6
124	2.847	3.055	19.2	11.5	1.84	21	7.43	835	77.20	22.47	91.5
blank	0.151	0.175	0.0	2.0	NA	NA	NA	NA	0.41	0	21.6
blank	0.275	0.293	0.0	4.0	NA	NA	NA	NA	0.40	0	36.8
Method	EPA 351.2	TKN + NO ₃ + NO ₂ 18th Ed. 2540-C	Standard Methods 18th Ed. 2540-E	EPA	EPA	EPA	EPA 120.1	Standard Methods 18ed 3111	Standard Methods 18ed 3111	Standard Methods 18th Ed. 5220 D	
Detection Level (mg/L)	0.1	0.001	0.001								
	BD = Below detection										
	NDA = No data available										

Appendix 4.2. Field parameters measured in September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Depth 1 (cm)	Depth 2 (cm)	Depth 3 (cm)	Avg Depth (cm)	Secchi (cm)	Temp (°C)
3	475	26.658	-80.443	4-Feb-04	13:50	87	79	84	83	74	22.8
6	476	26.669	-80.443	4-Feb-04	14:03	74	75	76	75	74	22.6
8	479	26.675	-80.443	4-Feb-04	15:15	64	66	65	65	50	23.6
13	473	26.667	-80.441	4-Feb-04	12:43	68	71	67	69	68	21.6
14	467	26.67	-80.441	3-Feb-04	16:00	73	73	68	71	69	22.4
21	474	26.669	-80.439	4-Feb-04	13:05	75	74	75	75	75	22
22	466	26.672	-80.439	3-Feb-04	15:40	77	74	76	76	73	22
27	468	26.663	-80.437	3-Feb-04	16:25	59	93		76	60	21.2
37	470	26.672	-80.435	4-Feb-04	11:30	76	75	74	75	50	20.5
37	471	26.672	-80.435	4-Feb-04	11:30	76	75	74	75	59	20.4
37	472	26.672	-80.435	4-Feb-04	11:30	76	75	74	75	55	20.7
38	465	26.675	-80.435	3-Feb-04	15:11	81	83	83	82	38	22.6
65	464	26.675	-80.427	3-Feb-04	14:51	32	35	37	35	10	22
73	463	26.668	-80.424	3-Feb-04	14:30	89	87	86	87	45	21
84	462	26.672	-80.42	3-Feb-04	14:10	65	62	62	63	39	21.4
89	461	26.67	-80.418	3-Feb-04	13:50	81	79	80	80	55	21.5
104	457	26.672	-80.412	3-Feb-04	11:50	67	65	69	67	44	20.1
108	458	26.67	-80.41	3-Feb-04	12:10	68	70	70	69	23	19.9
109	456	26.674	-80.41	3-Feb-04	11:31	79	78	76	78	30	20.1
111	451	26.668	-80.408	3-Feb-04	9:40	80	86	79	82	65	19
112	459	26.672	-80.408	3-Feb-04	13:14	79	77	76	77	20	20.9
113	455	26.675	-80.408	3-Feb-04	11:08	75	74	75	75	28	19.5
117	452	26.672	-80.404	3-Feb-04	10:19	69	70	69	69	45	19.7
117	453	26.672	-80.404	3-Feb-04	10:19	69	70	69	69	43	19.6
117	454	26.672	-80.404	3-Feb-04	10:19	69	70	69	69	54	19.7
121	477	26.670	-80.444	4-Feb-04	14:35	43	42	43	43	43	22.6
122	478	26.672	-80.443	4-Feb-04	15:03	68	60	58	62	42	23.6
124	460	26.671	-80.443	3-Feb-04	13:30	80	78	78	79	26	21

Appendix 4.2 (continued). Field parameters measured in September 03 in STA-1W Cell 5B.

Station	D.O. (mg/L)	pH	Conduct. (MS)	% Veg. Coverage	Veg Type	Floc Depth (cm)	Peat Depth (cm)	No. of Throws	Bulk Wet wt. (kg)	Sub Sample Wet wt. (kg)
3	6.78	8.56	919		hydra, cerato	10	10	1	0.4	0.4
6	6.47	8.41	889	10	hydra, cerato	10	10	3	0.26	0.26
8	10.92	8.84	854	70	najas	10	10	1	1.66	0.24
13	7.89	8.32	908	40	hydra	10	10	1	0.66	0.24
14	4.95	8.14	854	60	hydra, cerato	8	5	1	1.9	0.38
21	5.88	8.43	847	70	hydra	8	8	1	2.52	0.36
22	6.37	8.03	835	100	hydra	10	10	1	2.1	0.34
27	5.03	7.99	840	50	hydra	3	10	1	0.2	0.2
37	3.52	8.12	776	30	hydra	10	10	1	0.24	0.24
37	2.71	8.21	791	30	hydra	10	10	1	0.54	0.54
37	3.63	8.22	794	30	hydra	10	10	1	0.42	0.42
38	7.76	8.39	801	100	najas	8.5	10	1	3.26	0.36
65	4.7	7.58	843	20	hydra	7	10	3	0.42	0.42
73	4.53	7.72	773	2	hydra	9.5	10	3	0.1	0.1
84	4.88	7.43	818	90	hydra	6	10	1	0.84	0.38
89	4.07	8.11	797	100	hydra	14.5	8	1	1.76	0.28
104	2.73	7.56	856	50	hydra, cerato	3	10	3	0.9	0.24
108	1.33	7.58	812	98	hydra	12	10	1	2.24	0.34
109	3.12	7.59	839	0	none	8	10	3	0	0
111	1.03	7.17	832	50	hydra, cerato	8	10	1	2.16	0.16
112	3.96	7.56	930	0	none	9	10	3	0	0
113	3.16	7.53	842	100	hydra	12	10	1	1.2	0.3
117	2.72	6.42	872	0	hydra, cerato	7	10	3	0	0.04
117	2.85	6.37	874	0	hydra, cerato	10	10	1	0.22	0.22
117	2.85	6.37	877	0	hydra, cerato	10	10	3	0.02	0.02
121	5.47	8.49	851		najas, hydra	5	10	1	0.92	0.34
122	11.12	8.48	854	90	najas	8	10	1	2.32	0.46
124	1.84	7.43	835	100	hydra	11	10	1	1.52	0.34

Appendix 4.3. Soil parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample	Date	Type of Soil	Floc depth	Peat interval	Total P	Total N	Total C
							cm	cm	mg kg ⁻¹	g kg ⁻¹	g kg ⁻¹
3	475	26.658	-80.443	2/4/2004	Floc	10	N/A	762.08	29.3	467	
6	476	26.6690	-80.4430	2/4/2004	Floc	10	N/A	679.17	27.7	431	
8	479	26.675	-80.433	2/4/2004	Floc	10	N/A	571.43	28.2	443	
13	473	26.6670	-80.4410	2/4/2004	Floc	10	N/A	459.93	27.4	455	
14	467	26.6700	-80.4410	2/3/2004	Floc	8	N/A	487.54	30.4	486	
21	474	26.6690	-80.4390	2/4/2004	Floc	8	N/A	382.97	29.9	493	
22	466	26.6720	-80.4390	2/3/2004	Floc	10	N/A	641.60	28.1	446	
27	468	26.6630	-80.4370	2/3/2004	Floc	3	N/A	934.51	24.2	380	
37	470	26.6720	-80.4350	2/4/2004	Floc	10	N/A	554.41	26.9	432	
37	471	26.6720	-80.4350	2/4/2004	Floc	10	N/A	498.57	28.3	441	
37	472	26.6720	-80.4350	2/4/2004	Floc	10	N/A	646.84	26.7	407	
38	465	26.6750	-80.4350	2/3/2004	Floc	8.5	N/A	698.67	29.7	469	
65	464	26.6750	-80.4270	2/3/2004	Floc	7	N/A	550.61	11.0	186	
73	463	26.6680	-80.4240	2/3/2004	Floc	9.5	N/A	599.16	26.5	435	
84	462	26.6720	-80.4200	2/3/2004	Floc	6	N/A	714.40	20.3	345	
89	461	26.6700	-80.4180	2/3/2004	Floc	8	N/A	847.19	23.9	382	
104	457	26.6720	-80.4120	2/3/2004	Floc	3	N/A	197.59	75.9	492	
108	458	26.6700	-80.4100	2/3/2004	Floc	12	N/A	779.94	25.5	386	
109	456	26.6740	-80.4100	2/3/2004	Floc	8	N/A	450.78	111.2	473	
111	451	26.6680	-80.4080	2/3/2004	Floc	8	N/A	667.38	28.3	450	
112	459	26.6720	-80.4080	2/3/2004	Floc	9	N/A	649.65	25.4	422	
113	455	26.6750	-80.4080	2/3/2004	Floc	12	N/A	386.94	90.1	504	
117	452	26.6720	-80.4040	2/3/2004	Floc	7	N/A	524.63	26.8	457	
117	453	26.6720	-80.4040	2/3/2004	Floc	10	N/A	578.65	28.1	480	
117	454	26.6720	-80.4040	2/3/2004	Floc	10	N/A	663.67	27.2	448	
121	477	26.6704	-80.4439	2/4/2004	Floc	5	N/A	558.81	27.3	404	
122	478	26.6717	-80.4437	2/4/2004	Floc	8	N/A	548.07	28.2	451	
124	460	26.6698	-80.4115	2/3/2004	Floc	11	N/A	603.90	26.3	427	
3	475	26.658	-80.443	2/4/2004	Peat	N/A	10	626.84	28.5	485	
6	476	26.6690	-80.4430	2/4/2004	Peat	N/A	10	340.51	32.7	519	
8	479	26.675	-80.433	2/4/2004	Peat	N/A	10	380.67	33.2	510	
13	473	26.6670	-80.4410	2/4/2004	Peat	N/A	10	296.87	30.0	513	
14	467	26.6700	-80.4410	2/3/2004	Peat	N/A	5	746.36	28.8	446	
21	474	26.6690	-80.4390	2/4/2004	Peat	N/A	8	319.31	31.0	516	
22	466	26.6720	-80.4390	2/3/2004	Peat	N/A	10	376.24	29.5	493	
27	468	26.6630	-80.4370	2/3/2004	Peat	N/A	10	665.71	23.1	407	
37	470	26.6720	-80.4350	2/4/2004	Peat	N/A	10	346.50	31.9	510	
37	471	26.6720	-80.4350	2/4/2004	Peat	N/A	10	390.19	32.1	512	
37	472	26.6720	-80.4350	2/4/2004	Peat	N/A	10	416.88	31.2	507	
38	465	26.6750	-80.4350	2/3/2004	Peat	N/A	10	290.63	33.0	519	
65	464	26.6750	-80.4270	2/3/2004	Peat	N/A	10	356.04	4.7	126	
73	463	26.6680	-80.4240	2/3/2004	Peat	N/A	10	404.40	28.9	490	
84	462	26.6720	-80.4200	2/3/2004	Peat	N/A	10	785.28	25.2	408	
89	461	26.6700	-80.4180	2/3/2004	Peat	N/A	14.5	467.21	27.4	447	
104	457	26.6720	-80.4120	2/3/2004	Peat	N/A	10	752.41	25.9	377	
108	458	26.6700	-80.4100	2/3/2004	Peat	N/A	10	323.92	32.6	504	
109	456	26.6740	-80.4100	2/3/2004	Peat	N/A	10	218.53	31.7	522	
111	451	26.6680	-80.4080	2/3/2004	Peat	N/A	10	291.52	28.5	511	
112	459	26.6720	-80.4080	2/3/2004	Peat	N/A	10	260.57	30.0	510	
113	455	26.6750	-80.4080	2/3/2004	Peat	N/A	10	254.08	34.7	526	
117	452	26.6720	-80.4040	2/3/2004	Peat	N/A	10	289.61	28.4	503	
117	453	26.6720	-80.4040	2/3/2004	Peat	N/A	10	424.73	28.7	503	
117	454	26.6720	-80.4040	2/3/2004	Peat	N/A	10	599.57	28.1	471	
121	477	26.6704	-80.4439	2/4/2004	Peat	N/A	10	273.13	31.0	479	
122	478	26.6717	-80.4437	2/4/2004	Peat	N/A	10	320.71	30.7	504	
124	460	26.6698	-80.4115	2/3/2004	Peat	N/A	10	304.34	32.4	517	

Methods:

TN: Carlo Erba NA 1500 Ins. Manual and Methods of Soil Anaylsis Part 2, 2ed, section 31
TC: Carlo Erba NA 1500 Ins. Manual and Methods of Soil Anaylsis Part 2, 2ed, section 31
TP: Carlo Erba NA 1500 Ins. Manual and Methods of Soil Anaylsis Part 2, 2ed, section 31

Detection Level

0.02
0.003
0.002

BD = Below detection

NA = No applicable

Appendix 4.4. Pore water parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Field ID	Soil Type	Ca mg L ⁻¹	Mg mg L ⁻¹	SRP mg L ⁻¹	NH4 mg L ⁻¹	NO3 mg L ⁻¹	SO4 mg L ⁻¹	TKN mg L ⁻¹	TP mg L ⁻¹
3	2001	470	Floc	102.6	30.51	0.06791	2.743	0.021	40.994	2.512	0.160
3	2007	475	Floc	88	25.68	0.0552	1.949	0.021	64.948	2.686	0.092
6	2004	476	Floc	88.2	26.53	0.0261	1.567	0.021	48.636	1.931	0.072
8	2000	479	Floc	91.5	29.02	0.01377	2.914	0.021	32.428	3.847	0.113
13	2006	473	Floc	103.6	32.53	0.0790	4.744	0.021	30.217	3.992	0.145
14	2016	467	Floc	104.10	28.62	0.5938	8.604	0.021	51.033	8.043	0.680
21	2009	474	Floc	111	36.61	0.0854	5.566	0.015	19.072	4.660	0.104
22	2015	466	Floc	99.2	27.75	0.0547	2.670	0.021	40.821	2.889	0.080
37	2002	471	Floc	93.1	27.07	0.06795	3.319	0.015	42.686	3.209	0.124
37	2008	472	Floc	81.1	21.67	0.0466	2.178	0.015	43.843	2.193	0.081
65	2018	464	Floc	98.30	20.46	0.2377	6.509	0.021	42.180	4.689	0.644
73	2010	463	Floc	95.5	25.62	0.1141	4.563	0.015	54.085	3.586	0.300
84	2014	462	Floc	NSA	NSA	NSA	2.525	0.015	NSA	2.831	0.066
89	2011	461	Floc	103.3	30.55	0.3411	8.017	0.015	1.416	4.921	0.487
108	2024	458	Floc	103.8	30.58	0.1389	6.097	0.021	15.444	4.515	0.242
109	2012	456	Floc	92.5	25.83	0.0689	1.883	0.021	65.328	2.628	0.115
111	2021	451	Floc	92.60	25.83	0.1133	4.812	0.021	10.684	4.370	0.124
112	2019	459	Floc	102.90	29.98	0.0461	2.984	0.021	91.740	1.206	0.174
113	2023	455	Floc	105.3	29.12	0.0574	3.893	0.021	18.453	3.354	0.136
117	2013	452	Floc	NSA	NSA	NSA	1.570	0.021	NSA	2.396	0.223
117	2017	454	Floc	96.20	27.81	0.0873	3.333	0.021	69.164	3.151	0.320
117	2022	453	Floc	NSA	NSA	NSA	2.886	0.021	NSA	2.947	0.218
121	2003	477	Floc	NSA	NSA	NSA	1.801	0.015	NSA	2.193	0.062
122	2005	478	Floc	97	30.58	0.1381	4.436	0.026	4.680	3.934	0.199
124	2020	460	Floc	102.60	26.52	0.0906	3.570	NSA	55.128	6.708	NDA
3	2035	475	Peat	NSA	NSA	NSA	NSA	NSA	NSA	5.508	NDA
6	2034	476	Peat	NSA	NSA	NSA	4.588	0.031	NSA	4.689	0.160
8	2031	479	Peat	NSA	NSA	NSA	NSA	NSA	NSA	13.62	NDA
13	2037	473	Peat	NSA	NSA	NSA	5.023	NSA	NSA	11.93	NDA
21	2036	474	Peat	NSA	NSA	NSA	NSA	NSA	NSA	2.976	NDA
22	2043	466	Peat	NSA	NSA	NSA	7.828	NSA	NSA	14.30	NDA
37	2025	470	Peat	NSA	NSA	NSA	7.751	0.021	NSA	NSA	0.174
37	2026	471	Peat	NSA	NSA	0.1338	11.554	0.021	NSA	NSA	0.278
37	2038	471	Peat	NSA	NSA	NSA	9.780	0.042	NSA	18.02	NDA
38	2040	465	Peat	NSA	NSA	NSA	NSA	NSA	NSA	13.62	NDA
65	2044	464	Peat	NSA	NSA	NSA	NSA	NSA	NSA	11.59	NDA
73	2049	463	Peat	NSA	NSA	NSA	6.664	0.138	NSA	16.21	0.180
84	2048	462	Peat	NSA	NSA	NSA	7.618	0.053	NSA	14.97	0.200
89	2041	461	Peat	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NDA
104	2030	457	Peat	NSA	NSA	NSA	1.863	0.021	33.991	4.050	NDA
108	2050	458	Peat	NSA	NSA	NSA	NSA	NSA	NSA	1.790	NDA
109	2027	456	Peat	NSA	NSA	NSA	3.238	0.031	37.979	4.050	0.074
111	2028	451	Peat	NSA	NSA	NSA	8.564	0.021	NSA	3.470	0.476
112	2045	459	Peat	NSA	NSA	NSA	10.516	NSA	NSA	15.99	NDA
113	2029	455	Peat	NSA	NSA	0.0294	9.103	0.031	NSA	NSA	0.214
117	2039	452	Peat	NSA	NSA	NSA	4.716	0.149	NSA	12.04	0.160
117	2042	454	Peat	NSA	NSA	NSA	7.454	0.031	NSA	12.72	0.058
117	2046	453	Peat	NSA	NSA	NSA	9.024	NSA	NSA	15.99	NDA
121	2033	477	Peat	NSA	NSA	NSA	1.265	0.031	NSA	5.170	0.190
121	2047	460	Peat	NSA	NSA	NSA	6.304	0.074	NSA	11.59	NDA
122	2032	478	Peat	NSA	NSA	NSA	3.424	0.063	NSA	11.71	0.430
Standard Methods				Standard Methods	EPA 365.1	EPA 350.1	EPA 353.2	EPA 300.0	EPA 351.2	EPA 365.1	
Detection Level (mg/L)				3111	3111						
BD = below detection											
NSA = no sample available											

BD = below detection
NSA = no sample available

Appendix 4.5. Vegetation parameters for the sampling on September 03 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample	% Veg.		Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
					Date	Cov.	Species				
3	475	26.658	-80.443	2/4/2004		H	1.196	0.087	2336	354	30.8
3	475	26.658	-80.443	2/4/2004		C	0.041	0.001	3520	380	34.2
6	476	26.669	-80.443	2/4/2004	10	H	0.199	0.024	1603	356	32.0
6	476	26.669	-80.443	2/4/2004	10	C	0.031	0.003	1605	361	30.1
8	479	26.675	-80.443	2/4/2004	70	N	0.818	0.080	1011	305	25.1
13	473	26.667	-80.441	2/4/2004	40	H	0.772	0.063	1370	347	26.9
14	467	26.67	-80.441	2/3/2004	60	H	0.768	0.048	3590	344	36.4
14	467	26.67	-80.441	2/3/2004	60	C	0.166	0.009	2647	312	34.2
21	474	26.669	-80.439	2/4/2004	70	H	0.829	0.059	1499	293	29.1
22	466	26.672	-80.439	2/3/2004	100	H	0.876	0.060	2406	354	29.6
27	468	26.663	-80.437	2/3/2004	50	H	0.607	0.070	2588	274	27.3
37	470	26.672	-80.435	2/4/2004	30	H	0.844	0.073	1403	315	27.0
37	471	26.672	-80.435	2/4/2004	30	H	1.635	0.156	1431	299	26.2
37	472	26.672	-80.435	2/4/2004	30	H	1.378	0.119	1659	299	29.3
38	465	26.675	-80.435	2/3/2004	100	N	1.177	0.105	2687	280	25.7
38	465	26.675	-80.435	2/3/2004	100	H	0.076	0.005	2319	334	26.6
65	464	26.675	-80.427	2/3/2004	20	H	0.425	0.072	2845	415	20.0
73	463	26.668	-80.424	2/3/2004	2	H	0.000	0.010	2838	332	29.4
84	462	26.672	-80.42	2/3/2004	90	H	0.853	0.076	2303	287	27.4
89	461	26.67	-80.418	2/3/2004	100	H	0.850	0.066	2051	298	28.0
104	457	26.672	-80.412	2/3/2004	50	H	0.212	0.017	2297	329	31.5
104	457	26.672	-80.412	2/3/2004	50	C	0.051	0.003	2944	314	32.3
108	458	26.67	-80.41	2/3/2004	98	H	1.131	0.065	3043	307	33.5
109	456	26.674	-80.41	2/3/2004	0	NA	0.000	0.000	NA	NA	NA
111	451	26.668	-80.408	2/3/2004	50	H	0.448	0.020	2962	322	31.6
111	451	26.668	-80.408	2/3/2004	50	C	0.070	0.002	5634	337	33.6
112	459	26.672	-80.408	2/3/2004	0	NA	0.000	0.000	NA	NA	NA
113	455	26.675	-80.408	2/3/2004	100	C	0.827	0.075	1696	311	28.0
117	452	26.672	-80.404	2/3/2004	0	C	0.058	0.004	4927	345	38.9
117	453	26.672	-80.404	2/3/2004	0	H	0.768	0.045	5511	331	36.0
117	453	26.672	-80.404	2/3/2004	0	C	0.068	0.003	3802	338	37.1
117	454	26.672	-80.404	2/3/2004	0	H	0.156	0.017	2090	372	30.7
117	454	26.672	-80.404	2/3/2004	0	C	0.073	0.006	3242	328	33.2
122	478	26.672	-80.443	2/4/2004	90	N	1.274	0.124	1736	251	23.8
124	460	26.671	-80.443	2/3/2004	100	H	0.907	0.051	5153	328	33.5
127	477	26.670	-80.444	2/4/2004		N	0.833	0.072	1787	275	24.8
127	477	26.670	-80.444	2/4/2004		H	0.134	0.009	1410	322	24.2

Method

Detection

Level

(mg/L)

NDA = No data available

Carlo
Erba NA
1500 Ins.
Manual

Carlo
Erba NA
1500 Ins.

Carlo
Erba NA
1500 Ins.
Manual

H = Hydrila, HC = Hydrocotille, C = Ceratophyllum, WH = Water Hyacinth, WL = Water lettuce

Appendix 5.1. Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹
1	664	26.651	-80.443	4/16/2004	13:17	0.005	0.048	0.128	270	160
2	639	26.655	-80.443	4/13/2004	16:00	0.005	0.031	0.151	301	150
3	656	26.658	-80.443	4/16/2004	11:27	0.009	0.031	0.055	192	172
4	651	26.662	-80.443	4/16/2004	10:37	0.017	0.041	0.090	210	172
5	567	26.665	-80.443	4/15/2004	12:42	0.005	0.026	0.052	198	170
5	568	26.665	-80.443	4/15/2004	12:55	0.005	0.029	0.049	199	168
5	569	26.665	-80.443	4/15/2004	13:05	0.005	0.026	0.049	198	166
6	566	26.669	-80.443	4/15/2004	12:20	0.004	0.023	0.098	257	174
7	549	26.672	-80.443	4/14/2004	12:15	0.004	0.022	0.124	261	166
8	550	26.675	-80.443	4/14/2004	12:37	0.002	0.020	0.175	377	160
9	661	26.653	-80.441	4/16/2004	12:31	0.007	0.030	0.068	253	179
9	662	26.653	-80.441	4/16/2004	12:40	0.005	0.030	0.070	213	176
9	663	26.653	-80.441	4/16/2004	12:50	0.005	0.033	0.076	210	178
10	636	26.657	-80.441	4/13/2004	15:30	0.008	0.034	0.101	248	166
10	637	26.657	-80.441	4/13/2004	15:40	0.008	0.038	0.093	235	170
10	638	26.657	-80.441	4/13/2004	15:50	0.010	0.038	0.107	224	165
11	655	26.660	-80.441	4/16/2004	11:14	0.005	0.024	0.066	198	180
12	650	26.663	-80.441	4/16/2004	10:23	0.010	0.025	0.056	190	174
13	545	26.667	-80.441	4/14/2004	10:40	0.004	0.042	0.110	219	170
14	565	26.670	-80.441	4/15/2004	12:05	0.005	0.025	0.066	229	174
15	554	26.674	-80.441	4/14/2004	10:15	0.004	0.021	0.097	236	170
16	665	26.651	-80.439	4/16/2004	13:13	0.005	0.049	0.081	243	174
17	660	26.655	-80.439	4/16/2004	12:18	0.007	0.030	0.094	223	176

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹
18	635	26.658	-80.439	4/13/2004	15:20	0.010	0.033	0.069	219	172
19	652	26.662	-80.439	4/16/2004	10:49	0.005	0.022	0.061	205	176
19	653	26.662	-80.439	4/16/2004	10:56	0.005	0.022	0.068	220	176
19	654	26.662	-80.439	4/16/2004	11:05	0.004	0.022	0.079	228	174
20	570	26.665	-80.439	4/15/2004	13:55	0.005	0.024	0.059	193	170
21	546	26.669	-80.439	4/14/2004	11:02	0.004	0.039	0.055	222	172
22	555	26.672	-80.439	4/14/2004	10:43	0.004	0.022	0.065	226	174
23	551	26.675	-80.439	4/14/2004	12:53	0.005	0.026	0.075	256	138
24	668	26.653	-80.437	4/16/2004	14:12	0.004	0.033	0.053	215	174
25	659	26.657	-80.437	4/16/2004	12:05	0.007	0.032	0.114	258	172
26	634	26.660	-80.437	4/13/2004	15:05	0.008	0.034	0.121	238	172
27	571	26.663	-80.437	4/15/2004	14:15	0.005	0.028	0.134	257	172
28	547	26.667	-80.437	4/14/2004	11:26	0.007	0.038	0.074	214	174
29	562	26.670	-80.437	4/15/2004	10:55	0.004	0.024	0.114	254	176
30	544	26.674	-80.437	4/14/2004	10:13	0.008	0.054	0.070	238	172
31	666	26.651	-80.435	4/16/2004	13:42	0.005	0.045	0.111	249	174
32	669	26.655	-80.435	4/16/2004	14:23	0.007	0.033	0.062	208	176
33	658	26.658	-80.435	4/16/2004	11:56	0.017	0.039	0.073	205	178
34	633	26.662	-80.435	4/13/2004	14:50	0.005	0.034	0.132	290	170
35	543	26.665	-80.435	4/13/2004	17:30	0.004	0.044	0.097	328	166
36	564	26.669	-80.435	4/15/2004	11:35	0.005	0.026	0.063	226	172
37	647	26.672	-80.435	4/16/2004	9:55	0.013	0.036	0.258	195	178
37	648	26.672	-80.435	4/16/2004	10:05	0.015	0.037	0.068	203	178
37	649	26.672	-80.435	4/16/2004	10:15	0.015	0.036	0.091	223	180
38	552	26.675	-80.435	4/14/2004	13:18	0.007	0.023	0.090	244	168
39	667	26.653	-80.433	4/16/2004	14:01	0.004	0.034	0.068	223	182
40	670	26.657	-80.433	4/16/2004	14:40	0.015	0.040	0.081	295	183

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹
41	657	26.660	-80.433	4/16/2004	11:45	0.023	0.046	0.123	213	188
42	632	26.663	-80.433	4/13/2004	14:30	0.008	0.039	0.060	206	170
43	542	26.667	-80.433	4/13/2004	17:15	0.005	0.034	0.794	337	170
44	563	26.660	-80.433	4/15/2004	11:10	0.004	0.023	0.083	262	174
45	553	26.670	-80.433	4/14/2004	9:50	0.010	0.032	0.071	223	166
46	640	26.651	-80.431	4/13/2004	16:09	0.004	0.024	0.085	241	172
47	641	26.655	-80.431	4/13/2004	16:27	0.017	0.032	0.294	252	184
48	642	26.658	-80.431	4/13/2004	16:41	0.015	0.039	0.111	217	182
49	643	26.662	-80.431	4/13/2004	17:00	0.012	0.036	0.102	234	180
49	644	26.662	-80.431	4/13/2004	17:10	0.012	0.037	0.077	198	178
49	645	26.662	-80.431	4/13/2004	17:20	0.013	0.034	0.075	216	180
50	631	26.665	-80.431	4/13/2004	14:15	0.007	0.041	0.104	248	172
51	541	26.669	-80.431	4/13/2004	16:50	0.007	0.036	0.999	398	212
52	561	26.672	-80.431	4/14/2004	15:48	0.012	0.034	0.105	238	178
53	556	26.675	-80.431	4/14/2004	13:51	0.008	0.028	0.116	235	170
53	557	26.653	-80.429	4/14/2004	13:56	0.008	0.026	0.072	214	170
53	558	26.657	-80.429	4/14/2004	14:00	0.007	0.031	0.071	211	168
54	575	26.660	-80.429	4/15/2004	15:55	0.005	0.031	0.135	270	178
55	574	26.663	-80.429	4/15/2004	15:35	0.010	0.035	0.137	267	178
56	573	26.663	-80.429	4/15/2004	15:20	0.009	0.027	0.045	193	180
57	572	26.663	-80.429	4/15/2004	15:03	0.012	0.033	0.071	195	172
58	630	26.667	-80.429	4/13/2004	13:20	0.010	0.051	0.121	216	
59	540	26.670	-80.429	4/13/2004	16:45	0.004	0.025	0.090	332	168
60	560	26.674	-80.429	4/14/2004	14:47	0.007	0.030	0.128	264	168
61	622	26.662	-80.427	4/13/2004	16:55	0.005	0.024	0.063	221	160
61	623	26.662	-80.427	4/13/2004	16:55	0.007	0.025	0.062	232	164
61	624	26.662	-80.427	4/13/2004	13:55	0.007	0.024	0.058	225	164

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹
62	528	26.665	-80.427	4/13/2004	11:15	0.005	0.024	0.106	263	170
63	629	26.668	-80.427	4/13/2004	12:30	0.012	0.051	0.110	261	161
64	539	26.672	-80.427	4/13/2004	16:15	0.005	0.026	0.286	384	156
65	559	26.675	-80.427	4/14/2004	14:18	0.015	0.034	0.179	359	156
66	527	26.660	-80.425	4/13/2004	10:48	0.005	0.025	0.111	213	170
67	621	26.663	-80.425	4/13/2004	16:25	0.008	0.024	0.082	226	170
68	529	26.667	-80.425	4/13/2004	11:32	0.004	0.019	0.065	237	167
69	628	26.670	-80.425	4/13/2004	11:45	0.012	0.030	0.107	252	156
70	538	26.674	-80.425	4/13/2004	15:54	0.004	0.022	0.067	276	150
71	526	26.662	-80.424	4/13/2004	10:35	0.007	0.029	0.391	290	130
72	620	26.665	-80.424	4/13/2004	16:15	0.008	0.031	0.108	263	174
73	530	26.668	-80.424	4/13/2004	12:19	0.002	0.021	0.089	229	164
74	627	26.672	-80.424	4/13/2004	11:55	0.004	0.024	0.052	219	160
75	537	26.675	-80.424	4/13/2004	15:36	0.002	0.018	0.082	219	146
76	602	26.660	-80.422	4/12/2004	12:35	0.005	0.028	0.115	201	160
77	525	26.663	-80.422	4/13/2004	10:15	0.005	0.024	0.100	261	194
78	619	26.667	-80.422	4/13/2004	15:15	0.004	0.026	0.158	269	180
79	531	26.670	-80.422	4/13/2004	12:40	0.004	0.023	0.139	274	168
80	626	26.674	-80.422	4/13/2004	10:50	0.005	0.024	0.060	222	164
81	603	26.662	-80.420	4/12/2004	13:00	0.004	0.025	0.113	191	160
82	524	26.665	-80.420	4/13/2004	10:00	0.005	0.029	0.290	337	200
83	618	26.668	-80.420	4/13/2004	11:35	0.007	0.025	0.072	266	182
84	532	26.672	-80.420	4/13/2004	12:45	0.004	0.023	0.061	261	174
85	625	26.675	-80.420	4/13/2004	10:15	0.002	0.022	0.060	232	168
86	505	26.660	-80.418	4/12/2004	12:50	0.008	0.027	0.101	191	150
87	604	26.663	-80.418	4/12/2004	13:15	0.012	0.034	0.078	196	170
88	523	26.667	-80.418	4/13/2004	9:30	0.004	0.025	0.095	248	180

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹
89	617	26.670	-80.418	4/13/2004	11:00	0.007	0.024	0.089	316	180
90	533	26.674	-80.418	4/13/2004	13:10	0.007	0.025	0.124	261	170
90	534	26.674	-80.418	4/13/2004	13:15	0.012	0.199	0.041	282	174
90	535	26.674	-80.418	4/13/2004	13:38	0.013	0.041	0.124	287	174
91	506	26.662	-80.416	4/12/2004	13:30	0.008	0.030	0.079	199	148
92	605	26.665	-80.416	4/12/2004	13:55	0.016	0.045	0.207	275	184
93	521	26.668	-80.416	4/12/2004	17:30	0.016	0.044	0.174	211	176
94	616	26.672	-80.416	4/13/2004	10:30	0.005	0.025	0.115	274	192
95	536	26.675	-80.416	4/13/2004	13:45	0.004	0.025	0.101	387	180
96	504	26.660	-80.414	4/12/2004	12:25	0.015	0.038	0.082	184	148
97	507	26.663	-80.414	4/12/2004	13:45	0.026	0.055	0.330	244	190
98	606	26.667	-80.414	4/12/2004	14:25	0.010	0.033	0.075	218	174
99	520	26.670	-80.414	4/12/2004	17:15	0.008	0.027	0.066	184	170
100	615	26.674	-80.414	4/13/2004	10:00	0.007	0.029	0.133	334	192
101	503	26.662	-80.412	4/12/2004	12:10	0.016	0.046	0.137	184	180
102	508	26.665	-80.412	4/12/2004	14:00	0.013	0.039	0.179	249	207
103	607	26.668	-80.412	4/12/2004	15:15	0.010	0.038	0.150	276	190
103	608	26.668	-80.412	4/12/2004	15:30	0.007	0.035	0.113	265	188
103	609	26.668	-80.412	4/12/2004	15:45	0.010	0.031	0.094	251	190
104	519	26.672	-80.412	4/12/2004	16:40	0.012	0.035	0.243	220	192
105	614	26.675	-80.412	4/12/2004	17:55	0.004	0.016	0.055	199	160
106	502	26.663	-80.410	4/12/2004	11:40	0.049	0.080	0.179	215	212
107	509	26.667	-80.410	4/12/2004	14:15	0.015	0.043	0.131	230	194
108	610	26.670	-80.410	4/12/2004	16:35	0.013	0.039	0.123	232	194
109	516	26.674	-80.410	4/12/2004	16:00	0.005	0.032	0.237	261	198
110	601	26.665	-80.408	4/12/2004	11:45	0.012	0.035	0.181	256	208
111	510	26.668	-80.408	4/12/2004	14:30	0.012	0.041	0.175	220	190

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	SRP mg P L ⁻¹	TDP mg P L ⁻¹	Total P mg P L ⁻¹	Color CPU	Alkalinity mg CaCO ₃ L ⁻¹
112	611	26.672	-80.408	4/12/2004	16:45	0.002	0.028	0.306	261	202
113	515	26.675	-80.408	4/12/2004	15:45	0.004	0.012	0.033	180	118
114	500	26.667	-80.406	4/12/2004	10:40	0.012	0.038	0.155	251	90
114	501	26.667	-80.406	4/12/2004	11:20	0.013	0.038	0.226	256	144
114	600	26.667	-80.406	4/12/2004	10:45	0.012	0.036	0.162	272	209
115	518	26.670	-80.406	4/12/2004	16:27	0.016	0.042	0.240	256	228
116	612	26.674	-80.406	4/12/2004	17:15	0.005	0.029	0.159	225	194
117	517	26.672	-80.404	4/12/2004	16:15	0.008	0.037	0.330	291	200
118	613	26.675	-80.404	4/12/2004	17:30	0.010	0.034	0.116	215	180
119	511	26.674	-80.402	4/12/2004	15:00	0.015	0.042	0.144	241	196
120	512	26.675	-80.401	4/12/2004	15:15	0.007	0.032	0.301	263	172
120	513	26.675	-80.401	4/12/2004	15:20	0.005	0.029	0.160	225	170
120	514	26.675	-80.401	4/12/2004	15:25	0.007	0.029	0.100	225	166
blank	522	NA	NA	4/13/2004	18:10	NDA	NDA	NDA	NDA	NDA
blank	646	NA	NA	4/13/2004	17:40	0.002	0.003	0.003	25	3
blank	671	NA	NA	4/16/2004	15:30	0.004	0.003	0.003	25	3

Method EPA 365.2 EPA 365.2 EPA 365.2 EPA 110.2 EPA 310.1

Detection Level (mg/L) 0.002 0.003 0.003 25 3

BD = Below detection

NDA = No data available

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	Nitrate +		TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH pH units	Conductivity mS cm ⁻³	COD mg L ⁻¹
	NH4 mg N L ⁻¹	Nitrite mg N L ⁻¹									
1	0.094	0.045	3.598	3.644	28.00	11.00	21.3	8.61	8.77	1038	131.3
2	0.078	0.007	4.972	4.978	20.00	8.33	21.95	10.73	8.74	964	178.6
3	0.210	0.106	3.013	3.119	2.50	0.00	19.5	6.18	8.08	1060	42.7
4	0.212	0.111	3.481	3.593	14.74	3.16	18.7	5.99	8.12	1052	101.8
5	0.170	0.104	2.875	2.979	3.00	0.50	19.3	6.83	8.33	1044	140.2
5	0.156	0.087	2.816	2.903	2.50	0.50	19.5	7.49	8.33	1046	51.6
5	0.414	0.092	2.697	2.789	2.50	-1.00	19.3	7.23	8.33	1042	72.2
6	0.256	0.098	3.885	3.983	48.00	15.00	19	7.81	8.34	1050	137.2
7	0.192	0.036	3.588	3.624	30.00	13.00	20	5.52	8.01	1030	107.7
8	0.105	0.002	4.836	4.838	95.00	40.00	20.5	8.1	8.57	925	143.1
9	0.223	0.122	3.247	3.370	3.50	-0.50	20.7	8.55	8.34	1074	143.1
9	0.156	0.122	3.101	3.223	5.00	0.50	20.7	7.82	8.31	1072	104.7
9	0.205	0.106	4.360	4.466	4.00	-1.00	20.7	8.13	8.31	1072	113.6
10	0.249	0.078	3.588	3.667	19.00	4.00	21.97	10.97	8.61	993	125.4
10	0.315	0.084	3.529	3.613	11.00	2.00	22.09	10.4	8.63	995	134.3
10	0.292	0.084	3.351	3.435	31.00	9.00	21.96	10.4	8.63	992	450.4
11	0.162	0.045	3.013	3.058	9.50	2.50	19.2	7.26	8.34	1041	193.4
12	0.237	0.089	3.130	3.219	4.00	-0.50	18.9	5.47	8.09	10.53	116.6
13	0.299	0.047	3.588	3.635	20.00	5.00	19.4	5.2	8.02	900	160.9
14	0.163	0.058	3.054	3.112	11.48	2.46	18.6	6.35	8.13	1030	140.2
15	0.199	0.064	3.410	3.474	20.00	2.00	17.4	4.38	8.06	1035	140.2
16	0.198	0.073	3.218	3.291	10.00	1.54	21.1	9.62	8.59	1050	72.2
17	0.235	0.128	3.423	3.551	12.50	2.00	20	8.2	8.49	1065	137.2

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	NH4 mg N L ⁻¹	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH pH units	Conductivity mS cm ⁻³	COD mg L ⁻¹
18	0.225	0.062	3.351	3.412	13.00	4.00	21.66	9.19	8.47	9.98	110.6
19	0.108	0.023	3.101	3.124	13.00	2.00	19	7.89	8.5	1049	98.8
19	0.165	0.018	3.159	3.177	30.00	8.00	18.9	8.09	8.57	1050	152.0
19	0.124	0.012	3.159	3.171	26.00	6.00	19	7.73	8.57	1050	116.6
20	0.279	0.104	2.935	3.038	8.00	2.00	20.3	7.57	8.25	1050	128.4
21	0.309	0.070	3.083	3.153	5.00	-1.00	19.6	7.3	8.16	900	122.5
22	0.063	0.019	3.083	3.102	9.33	3.33	17.6	7.4	8.41	1038	131.3
23	0.224	0.036	3.172	3.208	42.86	14.29	20.7	9.2	8.61	928	119.5
24	0.507	0.084	2.984	3.067	3.00	-0.50	21.5	12.89	8.81	1055	137.2
25	0.172	0.117	3.598	3.715	30.00	8.00	20.2	9.67	8.54	1054	157.9
26	0.369	0.073	4.242	4.315	66.67	25.76	21.75	8.6	8.37	994	128.4
27	0.249	0.132	3.410	3.542	35.00	11.67	21.4	11.95	8.87	1037	149.1
28	0.284	0.075	3.054	3.129	9.00	1.00	20.2	6.02	8.24	944	146.1
29	0.285	0.070	3.588	3.658	40.79	13.16	17.77	5.82	8.12	1045	222.9
30	0.367	0.064	3.143	3.207	6.62	4.41	19.1	5.2	7.98	1023	104.7
31	0.348	0.056	3.598	3.655	20.00	5.00	20.9	7.68	8.49	1067	163.8
32	0.219	0.117	3.101	3.218	6.00	1.00	21.5	9.11	8.66	1052	208.2
33	0.304	0.161	3.130	3.291	3.00	0.00	19.6	7.39	8.23	1062	134.3
34	0.122	0.062	4.064	4.125	46.67	16.67	21.61	11.01	8.65	981	146.1
35	0.183	0.047	3.351	3.398	10.00	-12.00	24	6.72	8.04	1033	160.9
36	0.150	0.047	2.816	2.863	5.13	-0.64	18.1	6.94	8.27	1042	128.4
37	0.521	0.128	5.323	5.451	25.00	5.00	18.6	4.12	7.87	1054	178.6
37	0.536	0.117	3.393	3.510	13.71	2.42	18.6	4.15	7.87	1057	72.2
37	0.568	0.134	4.067	4.200	21.00	5.00	18.7	3.99	7.92	1056	143.1
38	0.141	0.092	3.172	3.265	17.00	4.00	20.8	7.4	8.26	944	152.0
39	0.177	0.073	3.189	3.261	13.08	1.54	21.6	12.31	8.74	1062	131.3
40	0.303	0.156	3.101	3.256	10.98	3.05	22.4	11.4	8.52	1061	172.7

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	NH4 mg N L ⁻¹	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH pH units	Conductivity mS cm ⁻³	COD mg L ⁻¹
41	0.508	0.128	3.598	3.726	36.00	11.00	19.3	5.74	7.96	1071	302.7
42	0.272	0.078	2.935	3.013	9.00	-5.00	20.97	9.9	8.52	973	131.3
43	0.252	0.019	3.232	3.251	48.00	16.00	24	6.81	7.7	1033	119.5
44	0.261	0.098	3.321	3.419	18.00	5.00	17.8	8.44	8.28	1045	119.5
45	0.439	0.115	3.172	3.287	18.00	5.00	17.3	7.93	3.75	827	125.4
46	0.173	0.034	3.481	3.516	36.00	13.00	22.7	12.04	8.79	1011	155.0
47	0.622	0.073	5.440	5.513	100.00	35.42	23	8.78	8.35	1012	119.5
48	0.234	0.128	3.569	3.697	23.00	7.00	22.7	7.07	8.19	1012	187.5
49	0.538	0.139	3.950	4.089	32.00	11.00	22.7	9.28	8.41	1012	222.9
49	0.495	0.117	3.306	3.423	9.09	1.14	22.7	9.3	8.41	1015	140.2
49	0.582	0.117	3.423	3.540	9.37	3.12	22.6	9.4	8.41	NDA	125.4
50	0.298	0.117	3.410	3.527	19.00	2.00	20.97	8.77	8.33	972	166.8
51	0.248	0.070	12.690	12.759	209.09	86.4	24	8.23	5.59	1038	106.2
52	0.154	0.149	3.469	3.618	40.28	16.67	21.8	6.37	8.05	1015	146.1
53	0.212	0.115	3.737	3.852	23.00	7.00	21.1	7.2	8.24	957	160.9
53	0.233	0.115	3.202	3.317	19.00	4.00	21	7.38	7.7	958	137.2
53	0.196	0.115	3.113	3.228	10.00	2.00	21	7.47	7.7	958	123.9
54	0.220	0.092	3.915	4.007	55.71	21.43	23.2	10.05	8.47	1037	157.9
55	0.175	0.115	4.539	4.654	79.63	35.19	24.5	10.24	8.4	1030	146.1
56	0.103	0.160	2.697	2.857	2.00	0.00	22.2	8.98	8.29	1028	122.5
57	7.835	0.126	2.697	2.823	8.82	0.59	21.9	6.73	8.22	1043	131.3
58	0.143	0.183	3.410	3.593	26.00	9.00	20.23	7.35	8.25	944	113.6
59	0.204	0.126	3.321	3.447	15.63	1.56	24	5.83	8.19	1039	131.3
60	0.365	0.160	3.885	4.045	35.71	17.86	21.3	6.46	8.17	1025	146.1
61	0.637	0.053	2.846	2.898	9.09	2.73	23.75	6.01	8.01	1013	146.1
61	0.176	0.058	2.846	2.904	10.00	1.00	23.7	5.31	7.98	1011	140.2
61	0.122	0.047	2.875	2.922	10.00	4.00	23.86	5.62	7.99	1015	81.1

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	NH4 mg N L ⁻¹	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH pH units	Conductivity mS cm ⁻³	COD mg L ⁻¹
62	0.151	0.053	3.648	3.700	33.33	9.3	22.5	4.1	7.88	982	128.4
63	0.285	0.073	3.885	3.958	38.33	13.33	20.62	7.53	8.34	939	175.6
64	0.163	0.058	NDA	NDA	137.50	62.50	24	5.65	8.01	999	113.6
65	0.188	0.171	4.420	4.591	100.00	47.50	21.8	8.43	8.52	939	137.2
66	0.134	0.030	3.351	3.381	27.14	14.3	24.4	13.40	8.44	1020	152.0
67	0.173	0.058	3.083	3.142	20.00	10.00	23.82	5.34	8.01	1022	126.9
68	0.205	0.036	2.905	2.941	23.91	8.70	23	6.37	8.06	1025	107.7
69	0.121	0.040	3.380	3.420	22.22	7.78	20.08	9.93	8.41	916	152.0
70	0.095	0.019	2.697	2.716	12.50		23.7	5.52	8.1	988	113.6
71	0.263	0.047	8.768	8.815	229.17	100.0	22.2	5.34	7.92	974	169.7
72	0.290	0.098	3.648	3.746	35.00	10.00	23.69	6.7	8.03	1020	190.4
73	0.086	0.019	3.321	3.340	75.56	28.9	23.7	7.65	8.16	1006	152.0
74	0.212	0.040	2.935	2.974	27.00	13.00	21.11	7.87	8.28	923	157.9
75	0.195	0.008	3.291	3.299	45.45	19.70	23.9	6.52	8.29	986	134.3
76	0.116	0.002	3.440	3.442	85.94	39.06	24.6	3.4	7.87	1023	157.9
77	0.127	0.081	3.529	3.610	23.75	7.5	22.2	4.46	8.19	1008	98.8
78	0.245	0.058	5.014	5.073	82.50	27.50	23.9	7.35	8.13	1030	143.1
79	0.283	0.030	3.440	3.470	24.21	10.53	23.6	7.07	8.21	1078	140.2
80	0.408	0.056	3.054	3.110	14.00	2.00	20.1	4.71	8.05	931	166.8
81	0.555	0.013	3.262	3.275	46.00	15.00	24.1	0.2	7.74	96	231.8
82	0.366	0.058	6.464	6.522	120.00	46.67	21.8	5.91	8.11	1011	113.6
83	0.205	0.070	3.588	3.658	10.00	2.22	22.91	7.38	8.09	1025	140.2
84	0.095	0.047	3.113	3.160	9.00	1.0	25.6	10.6	8.71	1026	104.7
85	0.300	0.012	2.935	2.947	14.00	3.00	19.71	6.71	8.14	938	155.0
86	0.082	0.002	NDA	NDA	35.37	13.41	24.5	4.93	7.88	1006	101.8
87	0.194	0.030	2.994	3.024	9.70	4.48	24.2	2.25	7.96	1048	149.1
88	0.130	0.036	3.232	3.268	22.22	7.78	21.8	5.34	8.07	984	104.7

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	NH4 mg N L ⁻¹	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH pH units	Conductivity mS cm ⁻³	COD mg L ⁻¹
89	0.100	0.058	3.440	3.498	25.00	12.50	22.5	6.82	8.05	1015	181.6
90	0.078	0.036	3.172	3.208	14.00	3.00	23.9	5.9	8.19	1041	143.1
90	0.406	0.047	4.895	4.943	71.43	26.79	5.86	7.72	7.72	1037	163.8
90	0.294	0.053	5.751	5.803	22.73	7.58	24.1	6.75	8.25	1034	110.6
91	0.117	0.008	2.994	3.002	10.45	4.48	24.6	5.66	8.03	1008	131.3
92	0.670	0.058	5.147	5.206	136.00	56.00	24.48	4.28	7.91	1072	228.8
93	0.221	0.070	4.034	4.104	85.00	37.50	24	2.82	7	1028	101.8
94	0.247	0.098	3.945	4.043	63.46	26.92	22.25	6.16	7.98	1035	178.6
95	0.267	0.013	3.113	3.126	27.08	8.33	24	6.31	8.06	1055	98.8
96	0.417	0.002	3.143	3.145	16.00	5.00	23.9	4.07	7.71	1010	107.7
97	0.391	0.041	6.226	6.267	275.00	118.75	24.5	0.11	7.73	1049	87.0
98	0.182	0.019	2.994	3.013	9.00	3.00	24.3	4.46	7.8	1079	290.9
99	0.143	0.019	2.994	3.013	17.00	6.00	24.2	5.23	7.94	1023	119.5
100	0.127	0.053	3.945	3.998	40.43	17.02	21.97	6.72	7.94	1019	208.2
101	0.217	0.002	3.469	3.471	20.00	7.50	24.1	3.36	7.53	1068	113.6
102	0.323	0.053	4.598	4.651	37.84	16.22	24.5	5.57	7.72	1090	NDA
103	0.396	0.036	4.004	4.040	40.63	14.06	24.3	5.37	8.09	1069	181.6
103	0.370	0.036	3.588	3.624	30.59	12.94	24.3	5.83	8.03	1073	169.7
103	0.362	0.036	3.291	3.327	12.00	4.00	24.3	5.45	7.96	1071	116.6
104	0.199	0.058	5.632	5.690	131.25	43.75	24.2	4.6	7.79	1056	119.5
105	0.042	0.002	2.935	2.937	44.00	18.00	24	6.04	8.17	1022	134.3
106	0.822	0.064	5.014	5.078	73.08	30.77	24.6	0.24	7.42	1100	92.9
107	0.253	0.025	3.826	3.850	20.00	6.67	24.2	4.4	7.73	1084	122.5
108	0.306	0.092	2.430	2.522	120.00	53.33	24.31	4.08	7.68	979	187.5
109	0.075	0.019	5.513	5.532	90.00	40.00	24.4	5.7	7.95	1073	134.3
110	0.261	0.030	3.499	3.529	33.33	13.89	24.5	3.96	7.77	1114	101.8
111	0.205	0.047	4.123	4.170	123.68	55.26	24.3	2.48	7.71	1060	81.1

Appendix 5.1 (Continued). Water column parameters for the sampling on April'04 in STA-1W Cell 5B.

Station	NH4 mg N L ⁻¹	Nitrate + Nitrite mg N L ⁻¹	TKN mg N L ⁻¹	TN mg N L ⁻¹	TSS mg L ⁻¹	NVSS mg L ⁻¹	Temp °C	DO mg L ⁻¹	pH pH units	Conductivity mS cm ⁻³	COD mg L ⁻¹
112	0.292	0.058	4.806	4.865	53.00	20.00	24	6.04	7.93	1086	208.2
113	0.143	0.002	2.757	2.758	4.50	1.00	24.1	5.37	8.7	943	116.6
114	0.308	0.025	3.767	3.791	25.00	11.11	23.9	3.68	7.1	1048	110.6
114	0.274	0.025	3.588	3.613	95.00	45.00	24.3	3.45	7.4	1029	107.7
114	0.279	0.036	3.974	4.010	46.30	16.67	24.16	4.57	7.74	1087	131.3
115	0.199	0.025	6.523	6.548	170.00	40.00	24.2	3.22	7.4	1102	110.6
116	0.165	0.030	4.182	4.213	74.14	34.48	24	4.63	7.96	1079	249.5
117	0.171	0.025	7.467	7.492	315.00	1060.00	24.2	4.2	7.83	1066	72.2
118	0.214	0.036	3.677	3.713	40.00	14.00	24.04	3.69	7.57	1072	137.2
119	0.209	0.025	3.707	3.732	50.00	18.42	24.1	3.34	7.7	1066	101.8
120	0.080	0.002	5.691	5.693	150.00	61.11	24.3	5.56	8.04	1050	128.4
120	0.080	0.002	3.648	3.650	36.25	16.25	NDA	6.34	8.04	1050	116.6
120	0.052	0.002	3.113	3.115	26.67	6.67	24.3	4.92	7.8	1044	149.1
blank	0.037	0.008	0.083	0.091	1.00	3.00	NA	NA	NA	NA	NDA
blank	0.073	0.007	0.173	0.179	0.00	-2.00	NA	NA	NA	NA	10.2
blank	0.036	0.012	NDA	NDA	0.00	-1.50	NA	NA	NA	NA	54.5
Method	EPA 350.1	EPA 353.2	EPA 351.2	TKN + NO3 + NO2	Standard Methods 18th Ed. 2540-C	Standard Methods 18th Ed. 2540-E		EPA 360.1	EPA 150.2	EPA 120.1	Standard Methods 18th Ed. 5220 D
Detection Level (mg/L)	0.019	0.008	0.1		0.001	0.001					

BD = Below detection

NDA = No data available

Appendix 5.2. Field Measurements for the sampling on May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Temp (°C)	D.O. (mg/L)	pH	Conduct . (mS)	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Avg Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type
1	664	26.651	-80.443	4/16/2004	13:17	21.3	8.61	8.77	1038	0.5	0.55	0.53	0.53	0.40	10%	H,C
2	639	26.655	-80.443	4/13/2004	16:00	22.0	10.73	8.74	964	0.44	0.5	0.48	0.47	0.46	40%	H
3	656	26.658	-80.443	4/16/2004	11:27	19.5	6.18	8.08	1060	0.55	0.55	0.6	0.57	0.55	1%	H,C
4	651	26.662	-80.443	4/16/2004	10:37	18.7	5.99	8.12	1052	0.49	0.53	0.49	0.50	bottom	2%	none
5	567	26.665	-80.443	4/15/2004	12:42	19.3	6.83	8.33	1044	0.63	0.65	0.68	0.65	0.63	10%	H,C, AL
5	568	26.665	-80.443	4/15/2004	12:55	19.5	7.49	8.33	1046	0.63	0.65	0.68	0.65	0.64	10%	H,C, AL
5	569	26.665	-80.443	4/15/2004	13:05	19.3	7.23	8.33	1042	0.63	0.65	0.68	0.65	0.54	10%	H,C, AL
6	566	26.669	-80.443	4/15/2004	12:20	19.0	7.81	8.34	1050	0.74	0.73	0.73	0.73	0.73	40%	H
7	549	26.672	-80.443	4/14/2004	12:15	20.0	5.52	8.01	1030	0.72	0.68	0.65	0.68	0.25	80%	CH,C,H
8	550	26.675	-80.443	4/14/2004	12:37	20.5	8.1	8.57	925	0.57	0.57	0.58	0.57	0.30	100%	N
9	661	26.653	-80.441	4/16/2004	12:31	20.7	8.55	8.34	1074	0.55	0.55	0.55	0.55	bottom	2%	none
9	662	26.653	-80.441	4/16/2004	12:40	20.7	7.82	8.31	1072	0.55	0.55	0.55	0.55	bottom	2%	none
9	663	26.653	-80.441	4/16/2004	12:50	20.7	8.13	8.31	1072	0.55	0.55	0.55	0.55	bottom	2%	H
10	636	26.657	-80.441	4/13/2004	15:30	22.0	10.97	8.61	993	0.36	0.37	0.34	0.36	bottom	80%	H
10	637	26.657	-80.441	4/13/2004	15:40	22.1	10.4	8.63	995	0.36	0.37	0.34	0.36	bottom	80%	H
10	638	26.657	-80.441	4/13/2004	15:50	22.0	10.4	8.63	992	0.36	0.37	0.34	0.36	bottom	80%	H
11	655	26.660	-80.441	4/16/2004	11:14	19.2	7.26	8.34	1041	0.45	0.43	0.48	0.45	bottom	40%	H
12	650	26.663	-80.441	4/16/2004	10:23	18.9	5.47	8.09	10.53	0.63	0.65	0.66	0.65	0.53	5%	H,C
13	545	26.667	-80.441	4/14/2004	10:40	19.4	5.2	8.02	900	0.63	0.64	0.65	0.64	NDA	75%	H
14	565	26.670	-80.441	4/15/2004	12:05	18.6	6.35	8.13	1030	0.65	0.66	0.65	0.65	0.65	20%	H
15	554	26.674	-80.441	4/14/2004	10:15	17.4	4.38	8.06	1035	0.62	0.62	0.7	0.65	0.48	50%	H
16	665	26.651	-80.439	4/16/2004	13:13	21.1	9.62	8.59	1050	0.49	0.51	0.55	0.52	0.49	60%	H, L
17	660	26.655	-80.439	4/16/2004	12:18	20.0	8.2	8.49	1065	0.65	0.65	0.63	0.64	0.58	0%	C
18	635	26.658	-80.439	4/13/2004	15:20	21.7	9.19	8.47	9.98	0.43	0.43	0.45	0.44	bottom	100%	H
19	652	26.662	-80.439	4/16/2004	10:49	19.0	7.89	8.5	1049	0.62	0.62	0.63	0.62	0.49	20%	H
19	653	26.662	-80.439	4/16/2004	10:56	18.9	8.09	8.57	1050	0.62	0.62	0.63	0.62	0.61	20%	H
19	654	26.662	-80.439	4/16/2004	11:05	19.0	7.73	8.57	1050	0.62	0.62	0.63	0.62	0.61	20%	H
20	570	26.665	-80.439	4/15/2004	13:55	20.3	7.57	8.25	1050	0.64	0.64	0.65	0.64	0.64	20%	H
21	546	26.669	-80.439	4/14/2004	11:02	19.6	7.3	8.16	900	0.41	0.68	0.72	0.60	0.55	80%	H

H = Hydrilla	N = Najas	AL=Algae
HC = Hydrocotille	WH = Water Hacinth	CH=Chara
C = Ceratophyllum	WL = Water Letucce	

Appendix 5.2 (Continued). Field Measurements for the sampling on May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Temp (°C)	D.O. (mg/L)	pH	Conduct . (mS)	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Avg Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type
22	555	26.672	-80.439	4/14/2004	10:43	17.6	7.4	8.41	1038	0.67	0.68	0.67	0.67	0.67	5%	H
23	551	26.675	-80.439	4/14/2004	12:53	20.7	9.2	8.61	928	0.58	0.6	0.57	0.58	0.47	50%	H
24	668	26.653	-80.437	4/16/2004	14:12	21.5	12.89	8.81	1055	0.5	0.45	0.51	0.49	bottom	80%	H
25	659	26.657	-80.437	4/16/2004	12:05	20.2	9.67	8.54	1054	0.45	0.48	0.35	0.43	bottom	60%	H
26	634	26.660	-80.437	4/13/2004	15:05	21.8	8.6	8.37	994	0.45	0.49	0.49	0.48	bottom	80%	H
27	571	26.663	-80.437	4/15/2004	14:15	21.4	11.95	8.87	1037	0.51	0.55	0.45	0.50	0.51	100%	H,C
28	547	26.667	-80.437	4/14/2004	11:26	20.2	6.02	8.24	944	0.65	0.58	0.64	0.62	0.50	60%	H,CH,C
29	562	26.670	-80.437	4/15/2004	10:55	17.8	5.82	8.12	1045	0.7	0.71	0.72	0.71	0.48	5%	H
30	544	26.674	-80.437	4/14/2004	10:13	19.1	5.2	7.98	1023	0.6	0.59	0.63	0.61	0.50	80%	H
31	666	26.651	-80.435	4/16/2004	13:42	20.9	7.68	8.49	1067	0.55	0.55	0.6	0.57	0.55	30%	H, L
32	669	26.655	-80.435	4/16/2004	14:23	21.5	9.11	8.66	1052	0.54	0.56	0.59	0.56	0.56	20%	H, AL
33	658	26.658	-80.435	4/16/2004	11:56	19.6	7.39	8.23	1062	0.53	0.54	0.55	0.54	bottom	50%	H
34	633	26.662	-80.435	4/13/2004	14:50	21.6	11.01	8.65	981	0.54	0.55	0.54	0.54	bottom	2%	H
35	543	26.665	-80.435	4/13/2004	17:30	24.0	6.72	8.04	1033	0.65	0.68	0.68	0.67	0.25	0%	none
36	564	26.669	-80.435	4/15/2004	11:35	18.1	6.94	8.27	1042	0.74	0.74	0.74	0.74	0.65	5%	H,C
37	647	26.672	-80.435	4/16/2004	9:55	18.6	4.12	7.87	1054	0.66	0.63	0.67	0.65	0.66	5%	H,C
37	648	26.672	-80.435	4/16/2004	10:05	18.6	4:15	7.87	1057	0.66	0.63	0.67	0.65	0.63	5%	H,C
37	649	26.672	-80.435	4/16/2004	10:15	18.7	3.99	7.92	1056	0.66	0.63	0.67	0.65	0.67	5%	H,C
38	552	26.675	-80.435	4/14/2004	13:18	20.8	7.4	8.26	944	0.65	0.69	0.71	0.68	0.25	100%	H,N
39	667	26.653	-80.433	4/16/2004	14:01	21.6	12.31	8.74	1062	0.51	0.54	0.52	0.52	bottom	20%	H, C, AL
40	670	26.657	-80.433	4/16/2004	14:40	22.4	11.4	8.52	1061	0.25	0.4	0.45	0.37	bottom	70%	H, C
41	657	26.660	-80.433	4/16/2004	11:45	19.3	5.74	7.96	1071	0.55	0.55	0.55	0.55	0.45	5%	none
42	632	26.663	-80.433	4/13/2004	14:30	21.0	9.9	8.52	973	0.56	0.56	0.56	0.56	bottom	100%	H
43	542	26.667	-80.433	4/13/2004	17:15	24.0	6.81	7.7	1033	0.7	0.72	0.72	0.71	0.15	10%	H,C,AL
44	563	26.660	-80.433	4/15/2004	11:10	17.8	8.44	8.28	1045	0.74	0.75	0.74	0.74	0.55	5%	H
45	553	26.670	-80.433	4/14/2004	9:50	17.3	7.93	3.75	827	0.65	0.68	0.68	0.67	0.68	100%	H, C
46	640	26.651	-80.431	4/13/2004	16:09	22.7	12.04	8.79	1011	0.5	0.48	0.55	0.51	0.50	80%	H
47	641	26.655	-80.431	4/13/2004	16:27	23.0	8.78	8.35	1012	0.45	0.47	0.58	0.50	0.45	15%	H,C
48	642	26.658	-80.431	4/13/2004	16:41	22.7	7.07	8.19	1012	0.56	0.5	0.5	0.52	0.50	30%	H,C,CL
49	643	26.662	-80.431	4/13/2004	17:00	22.7	9.28	8.41	1012	0.58	0.58	0.6	0.59	0.58	40%	H,C

H = Hydrilla	N = Najas	AL=Algae
HC = Hydrocotille	WH = Water Hacinth	CH=Chara
C = Ceratophyllum	WL = Water Letucce	

Appendix 5.2 (Continued). Field Measurements for the sampling on May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Temp (°C)	D.O. (mg/L)	pH	Conduct . (mS)	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Avg Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type
49	644	26.662	-80.431	4/13/2004	17:10	22.7	9.3	8.41	1015	0.58	0.58	0.6	0.59	0.60	40%	H,C
49	645	26.662	-80.431	4/13/2004	17:20	22.6	9.4	8.41	NDA	0.58	0.58	0.6	0.59	0.60	40%	H,C
50	631	26.665	-80.431	4/13/2004	14:15	21.0	8.77	8.33	972	0.7	0.68	0.68	0.69	0.63	20%	H, C
51	541	26.669	-80.431	4/13/2004	16:50	24.0	8.23	5.59	1038	0.68	0.7	0.68	0.69	0.20	20%	H,C,AL
52	561	26.672	-80.431	4/14/2004	15:48	21.8	6.37	8.05	1015	0.65	0.66	0.66	0.66	0.60	100%	H,C
53	556	26.675	-80.431	4/14/2004	13:51	21.1	7.2	8.24	957	0.75	0.8	0.65	0.73	0.65	40%	H
53	557	26.653	-80.429	4/14/2004	13:56	21.0	7.38	7.7	958	0.7	0.7	0.7	0.70	0.65	30%	H
53	558	26.657	-80.429	4/14/2004	14:00	21.0	7.47	7.7	958	0.75	0.75	0.75	0.75	0.60	30%	H
54	575	26.660	-80.429	4/15/2004	15:55	23.2	10.05	8.47	1037	0.39	0.48	0.52	0.46	0.39	20%	H
55	574	26.663	-80.429	4/15/2004	15:35	24.5	10.24	8.4	1030	0.56	0.57	0.47	0.53	0.45	50%	H,C,L
56	573	26.663	-80.429	4/15/2004	15:20	22.2	8.98	8.29	1028	0.55	0.58	0.57	0.57	0.45	0%	none
57	572	26.663	-80.429	4/15/2004	15:03	21.9	6.73	8.22	1043	0.51	0.55	0.59	0.55	0.51	40%	H
58	630	26.667	-80.429	4/13/2004	13:20	20.2	7.35	8.25	944	0.68	0.69	0.67	0.68	bottom	100%	H, C
59	540	26.670	-80.429	4/13/2004	16:45	24.0	5.83	8.19	1039	0.7	0.71	0.71	0.71	0.36	15%	H,C
60	560	26.674	-80.429	4/14/2004	14:47	21.3	6.46	8.17	1025	0.68	0.65	0.65	0.66	NDA	80%	H,C
61	622	26.662	-80.427	4/13/2004	16:55	23.8	6.01	8.01	1013	0.73	0.77	0.63	0.71	0.66	100%	H, C
61	623	26.662	-80.427	4/13/2004	16:55	23.7	5.31	7.98	1011	0.73	0.77	0.63	0.71	0.64	100%	H, C
61	624	26.662	-80.427	4/13/2004	13:55	23.9	5.62	7.99	1015	0.73	0.77	0.63	0.71	0.60	100%	H, C
62	528	26.665	-80.427	4/13/2004	11:15	22.5	4.1	7.88	982	0.8	0.78	0.77	0.78	0.23	0%	none
63	629	26.668	-80.427	4/13/2004	12:30	20.6	7.53	8.34	939	0.82	0.85	0.82	0.83	0.67	100%	C
64	539	26.672	-80.427	4/13/2004	16:15	24.0	5.65	8.01	999	0.41	0.46	0.39	0.42	0.15	0%	none
65	559	26.675	-80.427	4/14/2004	14:18	21.8	8.43	8.52	939	0.48	0.54	0.35	0.46	0.29	45%	H,C
66	527	26.660	-80.425	4/13/2004	10:48	24.4	13:40	8.44	1020	0.62	0.61	0.6	0.61	0.36	95%	H,AL
67	621	26.663	-80.425	4/13/2004	16:25	23.8	5.34	8.01	1022	0.7	0.7	0.69	0.70	0.50	40%	H, C
68	529	26.667	-80.425	4/13/2004	11:32	23.0	6.37	8.06	1025	0.8	0.78	0.76	0.78	0.54	10%	H
69	628	26.670	-80.425	4/13/2004	11:45	20.1	9.93	8.41	916	0.75	0.78	0.79	0.77	0.57	100%	H
70	538	26.674	-80.425	4/13/2004	15:54	23.7	5.52	8.1	988	0.86	0.86	0.88	0.87	0.36	0%	H
71	526	26.662	-80.424	4/13/2004	10:35	22.2	5.34	7.92	974	0.65	0.68	0.65	0.66	0.16	10%	H, C

H = Hydrilla N = Najas AL=Algae
 HC = Hydrocotille WH = Water Hacinth CH=Chara
 C = Ceratophyllum WL = Water Letucce

Appendix 5.2 (Continued). Field Measurements for the sampling on May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Temp (°C)	D.O. (mg/L)	pH	Conduct . (mS)	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Avg Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type
72	620	26.665	-80.424	4/13/2004	16:15	23.7	6.7	8.03	1020	0.74	0.76	0.76	0.75	0.45	10%	H, C
73	530	26.668	-80.424	4/13/2004	12:19	23.7	7.65	8.16	1006	0.28	0.28	0.28	0.28	0.76	10%	H,AL
74	627	26.672	-80.424	4/13/2004	11:55	21.1	7.87	8.28	923	0.75	0.77	0.75	0.76	0.64	15%	H, C
75	537	26.675	-80.424	4/13/2004	15:36	23.9	6.52	8.29	986	0.74	0.73	0.75	0.74	0.20	10%	H,AL
76	602	26.660	-80.422	4/12/2004	12:35	24.6	3.4	7.87	1023	0.4	0.4	0.4	0.40	0.25	80%	H
77	525	26.663	-80.422	4/13/2004	10:15	22.2	4.46	8.19	1008	0.65	0.69	0.67	0.67	0.30	90%	H,AL
78	619	26.667	-80.422	4/13/2004	15:15	23.9	7.35	8.13	1030	0.75	0.75	0.77	0.76	0.40	0%	H
79	531	26.670	-80.422	4/13/2004	12:40	23.6	7.07	8.21	1078	0.75	0.8	0.74	0.76	0.26	5%	H,C
80	626	26.674	-80.422	4/13/2004	10:50	20.1	4.71	8.05	931	0.85	0.84	0.84	0.84	bottom	40%	H, C
81	603	26.662	-80.420	4/12/2004	13:00	24.1	0.2	7.74	96	0.38	0.39	0.4	0.39	0.38	50%	H
82	524	26.665	-80.420	4/13/2004	10:00	21.8	5.91	8.11	1011	0.69	0.68	0.72	0.70	0.15	0%	none
83	618	26.668	-80.420	4/13/2004	11:35	22.9	7.38	8.09	1025	0.9	0.75	0.85	0.83	0.45	80%	H, C
84	532	26.672	-80.420	4/13/2004	12:45	25.6	10.6	8.71	1026	0.65	0.65	0.65	0.65	24.00	80%	H,AL,C
85	625	26.675	-80.420	4/13/2004	10:15	19.7	6.71	8.14	938	0.5	0.52	0.5	0.51	bottom	80%	H, C
86	505	26.660	-80.418	4/12/2004	12:50	24.5	4.93	7.88	1006	0.35	0.3	0.35	0.33	0.30	70%	H
87	604	26.663	-80.418	4/12/2004	13:15	24.2	2.25	7.96	1048	0.43	0.4	0.4	0.41	0.40	10%	H
88	523	26.667	-80.418	4/13/2004	9:30	21.8	5.34	8.07	984	0.74	0.75	0.74	0.74	0.29	30%	H
89	617	26.670	-80.418	4/13/2004	11:00	22.5	6.82	8.05	1015	0.69	0.69	0.69	0.69	0.55	15%	H
90	533	26.674	-80.418	4/13/2004	13:10	23.9	5.9	8.19	1041	0.75	0.74	0.75	0.75	0.31	70%	H
90	534	26.674	-80.418	4/13/2004	13:15	5.9	7.72	7.72	1037	0.75	0.74	0.75	0.75	0.35	10%	H
90	535	26.674	-80.418	4/13/2004	13:38	24.1	6.75	8.25	1034	0.34	0.34	0.35	0.34	0.34	70%	H
91	506	26.662	-80.416	4/12/2004	13:30	24.6	5.66	8.03	1008	0.35	0.35	0.3	0.33	0.30	90%	H
92	605	26.665	-80.416	4/12/2004	13:55	24.5	4.28	7.91	1072	0.45	0.44	0.44	0.44	0.30	40%	H,C
93	521	26.668	-80.416	4/12/2004	17:30	24.0	2.82	7	1028	0.55	0.55	0.55	0.55	0.25	90%	H, CH
94	616	26.672	-80.416	4/13/2004	10:30	22.3	6.16	7.98	1035	0.74	0.73	0.72	0.73	0.50	5%	H
95	536	26.675	-80.416	4/13/2004	13:45	24.0	6.31	8.06	1055	0.75	0.75	0.76	0.75	0.23	0%	none
96	504	26.660	-80.414	4/12/2004	12:25	23.9	4.07	7.71	1010	0.4	0.4	0.4	0.40	0.27	90%	H
97	507	26.663	-80.414	4/12/2004	13:45	24.5	0.11	7.73	1049	0.4	0.45	0.4	0.42	0.10	30%	H,C
98	606	26.667	-80.414	4/12/2004	14:25	24.3	4.46	7.8	1079	0.51	0.4	0.44	0.45	0.30	90%	H

H = Hydrilla	N = Najas	AL=Algae
HC = Hydrocotille	WH = Water Hacinth	CH=Chara
C = Ceratophyllum	WL = Water Letucce	

Appendix 5.2 (Continued). Field Measurements for the sampling on May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Sample date	Time	Temp (°C)	D.O. (mg/L)	pH	Conduct . (mS)	Depth 1 (m)	Depth 2 (m)	Depth 3 (m)	Avg Depth (m)	Secchi (m)	% Veg. Coverage	Veg Type
99	520	26.670	-80.414	4/12/2004	17:15	24.2	5.23	7.94	1023	0.62	0.7	0.65	0.66	0.53	70%	H
100	615	26.674	-80.414	4/13/2004	10:00	22.0	6.72	7.94	1019	0.85	0.84	0.8	0.83	0.35	10%	H
101	503	26.662	-80.412	4/12/2004	12:10	24.1	3.36	7.53	1068	0.4	0.45	0.35	0.40	0.30	60%	H
102	508	26.665	-80.412	4/12/2004	14:00	24.5	5.57	7.72	1090	0.75	0.75	0.7	0.73	0.20	50%	H,CH
103	607	26.668	-80.412	4/12/2004	15:15	24.3	5.37	8.09	1069	0.34	0.28	0.3	0.31	0.34	40%	H,C
103	608	26.668	-80.412	4/12/2004	15:30	24.3	5.83	8.03	1073	0.34	0.28	0.3	0.31	0.34	40%	H,C
103	609	26.668	-80.412	4/12/2004	15:45	24.3	5.45	7.96	1071	0.34	0.28	0.3	0.31	0.34	40%	H,C
104	519	26.672	-80.412	4/12/2004	16:40	24.2	4.6	7.79	1056	0.45	0.42	0.42	0.43	0.35	30%	H
105	614	26.675	-80.412	4/12/2004	17:55	24.0	6.04	8.17	1022	0.43	0.45	0.45	0.44	0.45	10%	H
106	502	26.663	-80.410	4/12/2004	11:40	24.6	0.24	7.42	1100	0.3	0.3	0.3	0.30	0.10	100%	H,AL
107	509	26.667	-80.410	4/12/2004	14:15	24.2	4.4	7.73	1084	0.35	0.35	0.35	0.35	0.30	50%	H
108	610	26.670	-80.410	4/12/2004	16:35	24.3	4.08	7.68	979	0.44	0.44	0.45	0.44	0.34	80%	H
109	516	26.674	-80.410	4/12/2004	16:00	24.4	5.7	7.95	1073	0.55	0.55	0.55	0.55	0.15	20%	H
110	601	26.665	-80.408	4/12/2004	11:45	24.5	3.96	7.77	1114	0.44	0.45	0.46	0.45	0.35	10%	H,C
111	510	26.668	-80.408	4/12/2004	14:30	24.3	2.48	7.71	1060	0.45	0.45	0.5	0.47	0.15	95%	H,WL, WH
112	611	26.672	-80.408	4/12/2004	16:45	24.0	6.04	7.93	1086	0.6	0.55	0.55	0.57	0.80	0%	none
113	515	26.675	-80.408	4/12/2004	15:45	24.1	5.37	8.7	943	0.45	0.42	0.48	0.45	0.26	90%	H
114	500	26.667	-80.406	4/12/2004	10:40	23.9	3.68	7.1	1048	0.4	0.5	0.5	0.47	0.10	5%	H
114	501	26.667	-80.406	4/12/2004	11:20	24.3	3.45	7.4	1029	0.4	0.4	0.4	0.40	0.23	5%	H, AL
114	600	26.667	-80.406	4/12/2004	10:45	24.2	4.57	7.74	1087	0.5	0.525	0.5	0.51	0.30	5%	H,C
115	518	26.670	-80.406	4/12/2004	16:27	24.2	3.22	7.4	1102	0.45	0.45	0.45	0.45	0.15	0%	none
116	612	26.674	-80.406	4/12/2004	17:15	24.0	4.63	7.96	1079	0.54	0.47	0.49	0.50	0.25	30%	H,C,N
117	517	26.672	-80.404	4/12/2004	16:15	24.2	4.2	7.83	1066	0.35	0.3	0.35	0.33	0.12	50%	H,CH
118	613	26.675	-80.404	4/12/2004	17:30	24.0	3.69	7.57	1072	0.75	0.45	0.44	0.55	0.40	5%	H,C
119	511	26.674	-80.402	4/12/2004	15:00	24.1	3.34	7.7	1066	0.4	0.4	0.4	0.40	0.20	70%	H
120	512	26.675	-80.401	4/12/2004	15:15	24.3	5.56	8.04	1050	0.35	0.4	0.35	0.37	0.28	30%	H
120	513	26.675	-80.401	4/12/2004	15:20	NDA	6.34	8.04	1050	0.42	0.4	0.35	0.39	0.22	30%	H
120	514	26.675	-80.401	4/12/2004	15:25	24.3	4.92	7.8	1044	0.4	0.35	0.42	0.39	0.29	30%	H

H = Hydrilla	N = Najas	AL=Algae
HC = Hydrocotille	WH = Water Hacinth	CH=Chara
C = Ceratophyllum	WL = Water Letucce	

Appendix 5.3. Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight		Total P	Total N	Total C
							kg m ⁻²	kg m ⁻²			
1	664	26.651	-80.443	4/16/2004	13:17	hydr	1.00	0.09	1999	25.2	320
2	639	26.655	-80.443	4/13/2004	16:00	hydr	3.97	0.34	1832	24.0	309
3	656 a	26.658	-80.443	4/16/2004	11:27	hydr	0.50	0.05	1732	24.0	344
3	656 b	26.658	-80.443	4/16/2004	11:27	cerato	0.30	0.03	1316	21.3	359
4	651	26.662	-80.443	4/16/2004	10:37	none	0.00	0.0	NA	NA	NA
5	567	26.665	-80.443	4/15/2004	12:42	hydr	8.00	0.56	1434	22.8	305
5	568	26.665	-80.443	4/15/2004	12:55	hydr	4.80	0.34	1542	23.7	321
5	569	26.665	-80.443	4/15/2004	13:05	hydr	6.00	0.40	1830	25.8	319
6	566	26.669	-80.443	4/15/2004	12:20	hydr	8.00	0.74	1272	27.6	350
7	549 a	26.672	-80.443	4/14/2003	12:15	cerato	4.31	0.34	1759	27.3	321
7	549 b	26.672	-80.443	4/14/2003	12:15	hydr	0.89	0.08	1655	27.1	312
8	550a	26.675	-80.443	4/14/2003	12:37	hydr	0.35	0.04	833	22.2	342
8	550b	26.675	-80.443	4/14/2003	12:37	najas	4.45	0.41	1314	26.7	337
9	661	26.653	-80.441	4/16/2004	12:31	none	0.00	0.00	NA	NA	NA
9	662	26.653	-80.441	4/16/2004	12:40	none	0.00	0.00	NA	NA	NA
9	663 a	26.653	-80.441	4/16/2004	12:50	hydr	0.19	0.02	1909	24.4	310
9	663 b	26.653	-80.441	4/16/2004	12:50	cerato	1.41	0.14	1885	24.6	319
10	637	26.657	-80.441	4/13/2004	15:40	hydr	2.97	0.30	1913	24.4	330
10	636 a	26.657	-80.441	4/13/2004	15:30	hydr	2.45	0.22	2282	26.8	331
10	636 b	26.657	-80.441	4/13/2004	15:30	cerato	0.04	0.01	1175	18.0	360
10	638a	26.657	-80.441	4/13/2004	15:50	cerato	0.55	0.31	2888	29.7	333
10	638b	26.657	-80.441	4/13/2004	15:50	hydr	9.02	1.13	2458	28.3	332
11	655	26.660	-80.441	4/16/2004	11:14	hydr	5.20	0.37	2078	27.8	310
12	650	26.663	-80.441	4/16/2004	10:23	hydr	14.40	1.07	2018	25.7	323
13	545	26.667	-80.441	4/14/2003	10:40	hydr	11.60	0.88	1395	23.2	316
14	565	26.670	-80.441	4/15/2004	12:05	hydr	0.80	0.08	2025	29.4	341
15	554	26.674	-80.441	4/14/2003	10:15	hydr	1.28	0.12	1227	21.1	289
16	665	26.651	-80.439	4/16/2004	13:13	hydr	3.20	0.17	1689	28.2	325
17	660	26.655	-80.439	4/16/2004	12:18	cerato	0.56	0.05	2890	32.2	338

Appendix 5.3 (Continued). Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight		Total P	Total N	Total C
							kg m ⁻²	kg m ⁻²			
18	635	26.658	-80.439	4/13/2004	15:20	hydr	4.13	0.28	2205	27.0	279
19	652	26.662	-80.439	4/16/2004	10:49	hydr	10.40	0.92	1863	24.9	318
19	653	26.662	-80.439	4/16/2004	10:56	hydr	2.00	0.20	1596	23.3	321
19	654	26.662	-80.439	4/16/2004	11:05	hydr	8.00	0.55	2268	27.8	337
20	570	26.665	-80.439	4/15/2004	13:55	hydr	1.20	0.12	1703	26.1	315
21	546	26.669	-80.439	4/14/2003	11:02	hydr	5.60	0.49	1596	24.8	326
22	555	26.672	-80.439	4/14/2003	10:43	hydr	3.60	0.43	1377	24.0	322
23	551	26.675	-80.439	4/14/2003	12:53	hydr	2.40	0.19	1325	20.7	323
24	668	26.653	-80.437	4/16/2004	14:12	hydr	6.40	0.62	2432	26.2	332
25	659	26.657	-80.437	4/16/2004	12:05	hydr	4.72	0.40	2055	26.0	311
26	634	26.660	-80.437	4/13/2004	15:05	hydr	0.71	0.06	1971	24.2	287
27	571	26.663	-80.437	4/15/2004	14:15	hydr	8.24	0.84	2063	24.0	326
28	547	26.667	-80.437	4/14/2003	11:26	hydr	16.40	1.27	2204	26.0	306
29	562	26.670	-80.437	4/15/2004	10:55	hydr	1.76	0.13	1604	25.3	310
30	544	26.674	-80.437	4/14/2003	10:13	hydr	1.16	0.11	2000	26.6	303
31	666	26.651	-80.435	4/16/2004	13:42	hydr	25.60	1.64	1836	23.6	302
32	669	26.655	-80.435	4/16/2004	14:23	hydr	4.80	0.41	2020	27.4	320
33	658	26.658	-80.435	4/16/2004	11:56	hydr	1.84	0.18	2004	24.5	312
34	633	26.662	-80.435	4/13/2004	14:50	hydr	3.25	0.27	2205	24.6	298
35	543	26.665	-80.435	4/13/2004	17:30	none	0.00	0.00	NA	NA	NA
36	564	26.669	-80.435	4/15/2004	11:35	hydr	7.60	0.55	1869	26.2	326
37	647	26.672	-80.435	4/16/2004	9:55	none	0.00	0.00	NA	NA	NA
37	648	26.672	-80.435	4/16/2004	10:05	hydr	0.56	0.06	1645	24.2	323
37	649 a	26.672	-80.435	4/16/2004	10:15	cerato	3.23	0.36	1608	25.1	344
37	649 b	26.672	-80.435	4/16/2004	10:15	hydr	1.57	0.14	1692	24.5	330
38	552	26.675	-80.435	4/14/2003	13:18	hydr	10.40	0.82	2197	26.8	315
39	667 a	26.653	-80.433	4/16/2004	14:01	hydr	3.47	0.34	2069	26.6	342
39	667 b	26.653	-80.433	4/16/2004	14:01	cerato	0.53	0.02	2117	32.2	349

Appendix 5.3 (Continued). Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight		Total P	Total N	Total C
							kg m ⁻²	kg m ⁻²			
40	670 a	26.657	-80.433	4/16/2004	14:40	hydr	3.34	0.32	2145	26.0	334
40	670 b	26.657	-80.433	4/16/2004	14:40	cerato	1.46	0.11	2277	29.1	332
41	657	26.660	-80.433	4/16/2004	11:45	none	0.00	0.00	NA	NA	NA
42	632	26.663	-80.433	4/13/2004	14:30	hydr	NDA	NDA	2358	28.2	301
43	542	26.667	-80.433	4/13/2004	17:15	hydr	0.64	0.05	2192	25.0	329
44	563	26.660	-80.433	4/15/2004	11:10	hydr	4.96	0.39	1786	26.0	302
45	553	26.670	-80.433	4/14/2003	9:50	hydr	5.20	0.50	1900	23.6	286
46	640	26.651	-80.431	4/13/2004	16:09	hydr	10.00	0.73	1487	24.0	322
47	641 a	26.655	-80.431	4/13/2004	16:27	hydr	2.52	0.24	1636	24.9	322
47	641 b	26.655	-80.431	4/13/2004	16:27	cerato	0.12	0.01	1689	29.3	332
48	642	26.658	-80.431	4/13/2004	16:41	hydr	0.68	0.05	1932	24.5	321
49	645	26.662	-80.431	4/13/2004	17:20	hydr	8.00	0.64	NDA	NDA	NDA
49	643 a	26.662	-80.431	4/13/2004	17:00	hydr	1.68	0.15	2374	27.9	309
49	643 b	26.662	-80.431	4/13/2004	17:00	cerato	2.32	0.19	2412	27.8	326
49	644 a	26.662	-80.431	4/13/2004	17:10	hydr	1.72	0.14	2572	28.3	322
49	644 b	26.662	-80.431	4/13/2004	17:10	cerato	0.60	0.02	2858	30.9	327
50	631 a	26.665	-80.431	4/13/2004	14:15	hydr	0.35	0.03	1798	23.0	308
50	631 b	26.665	-80.431	4/13/2004	14:15	cerato	0.09	0.01	2028	28.1	344
51	541 a	26.669	-80.431	4/13/2004	16:50	hydr	5.23	0.35	2022	26.5	312
51	541 b	26.669	-80.431	4/13/2004	16:50	cerato	0.37	0.02	2264	26.5	339
52	561	26.672	-80.431	4/14/2003	15:48	hydr	12.80	0.88	2574	26.7	303
53	556	26.675	-80.431	4/14/2003	13:51	hydr	0.72	0.05	1667	22.6	301
53	557	26.653	-80.429	4/14/2003	13:56	hydr	1.04	0.08	2019	24.2	303
53	558	26.657	-80.429	4/14/2003	14:00	hydr	3.20	0.35	1513	21.5	287
54	575	26.660	-80.429	4/15/2004	15:55	hydr	4.80	0.41	1315	20.9	288
55	574 a	26.663	-80.429	4/15/2004	15:35	hydr	1.86	0.15	2584	30.0	331

Appendix 5.3 (Continued). Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N mg kg ⁻¹	Total C mg kg ⁻¹
55	574 b	26.663	-80.429	4/15/2004	15:35	cerato	0.94	0.05	3440	34.8	352
56	573	26.663	-80.429	4/15/2004	15:20	none	0.00	0.00	NA	NA	NA
57	572	26.663	-80.429	4/15/2004	15:03	hydr	0.24	0.02	2458	27.5	326
58	630	26.667	-80.429	4/13/2004	13:20	hydr	5.68	0.54	1954	25.3	287
59	540 a	26.670	-80.429	4/13/2004	16:45	hydr	0.48	0.03	2026	26.6	330
59	540 b	26.670	-80.429	4/13/2004	16:45	cerato	0.72	0.06	2020	26.6	352
60	560 a	26.674	-80.429	4/14/2003	14:47	hydr	0.26	0.02	2182	23.0	270
60	560 b	26.674	-80.429	4/14/2003	14:47	cerato	0.08	0.01	2309	27.5	283
61	622	26.662	-80.427	4/13/2004	16:55	hydr	3.80	0.30	2479	26.0	297
61	623 a	26.662	-80.427	4/13/2004	16:55	hydr	1.88	0.15	2311	27.4	306
61	623 b	26.662	-80.427	4/13/2004	16:55	cerato	1.92	0.15	2536	28.8	294
61	624 a	26.662	-80.427	4/13/2004	13:55	hydr	4.82	0.42	2477	28.2	302
61	624 b	26.662	-80.427	4/13/2004	13:55	cerato	0.58	0.04	3602	32.6	312
62	528	26.665	-80.427	4/13/2004	11:15	none	0.00	0.00	NA	NA	NA
63	629	26.668	-80.427	4/13/2004	12:30	none	0.00	0.00	NA	NA	NA
64	539	26.672	-80.427	4/13/2004	16:15	hydr	0.16	0.01	2277	23.0	300
65	559 a	26.675	-80.427	4/14/2003	14:18	hydr	0.79	0.07	2292	23.9	307
65	559 b	26.675	-80.427	4/14/2003	14:18	cerato	0.09	0.01	2320	30.4	318
66	527	26.660	-80.425	4/13/2004	10:48	hydr	34.40	2.70	1823	24.8	305
67	621 a	26.663	-80.425	4/13/2004	16:25	hydr	1.14	0.10	2192	26.1	315
67	621 b	26.663	-80.425	4/13/2004	16:25	cerato	2.46	0.22	2296	27.8	304
68	529	26.667	-80.425	4/13/2004	11:32	hydr	7.60	0.55	1999	23.5	290
69	628	26.670	-80.425	4/13/2004	11:45	hydr	5.72	0.48	1759	23.1	302
70	538	26.674	-80.425	4/13/2004	15:54	hydr	0.32	0.03	1631	27.5	375
71	526	26.662	-80.424	4/13/2004	10:35	hydr	6.80	0.62	2216	26.2	320
72	620 a	26.665	-80.424	4/13/2004	16:15	hydr	0.46	0.05	2247	27.1	333
72	620 b	26.665	-80.424	4/13/2004	16:15	cerato	0.06	0.00	2412	29.4	354

Appendix 5.3 (Continued). Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N mg kg ⁻¹	Total C mg kg ⁻¹
73	530	26.668	-80.424	4/13/2004	12:19	hydr	7.04	0.67	1926	20.1	254
74	627	26.672	-80.424	4/13/2004	11:55	hydr	0.22	0.02	1592	24.4	329
75	537	26.675	-80.424	4/13/2004	15:36	hydr	0.96	0.11	1412	21.9	334
76	602	26.660	-80.422	4/12/2004	12:35	hydr	11.44	1.12	1946	23.4	283
77	525	26.663	-80.422	4/13/2004	10:15	hydr	8.00	0.40	2199	28.9	327
78	619	26.667	-80.422	4/13/2004	15:15	none	0.00	0.00	NA	NA	NA
79	531	26.670	-80.422	4/13/2004	12:40	hydr	8.00	0.85	1795	24.3	281
80	626	26.674	-80.422	4/13/2004	10:50	hydr	4.20	0.32	2348	27.6	317
81	603 a	26.662	-80.420	4/12/2004	13:00	hydr	4.25	0.39	2188	27.1	312
81	603 b	26.662	-80.420	4/12/2004	13:00	hydr	0.71	0.08	1500	23.0	339
82	524	26.665	-80.420	4/13/2004	10:00	none	0.00	0.00	NA	NA	NA
83	618	26.668	-80.420	4/13/2004	11:35	hydr	1.20	0.13	2321	24.5	313
84	532	26.672	-80.420	4/13/2004	12:45	hydr	9.48	0.59	2693	27.2	296
85	625 a	26.675	-80.420	4/13/2004	10:15	hydr	0.75	0.08	1670	21.9	318
85	625 b	26.675	-80.420	4/13/2004	10:15	cerato	0.09	0.01	1193	19.5	343
86	505	26.660	-80.418	4/12/2004	12:50	hydr	4.40	0.42	1722	23.1	311
87	604	26.663	-80.418	4/12/2004	13:15	hydr	0.57	0.03	2627	28.2	333
88	523 a	26.667	-80.418	4/13/2004	9:30	hydr	2.70	0.22	2321	32.2	365
88	523 b	26.667	-80.418	4/13/2004	9:30	cerato	1.30	0.11	2320	29.6	301
89	617	26.670	-80.418	4/13/2004	11:00	hydr	0.11	0.01	2129	23.3	293
90	533	26.674	-80.418	4/13/2004	13:10	hydr	1.60	0.08	2095	27.4	315
90	534	26.674	-80.418	4/13/2004	13:15	hydr	2.80	0.20	1995	26.3	307
90	535	26.674	-80.418	4/13/2004	13:38	hydr	10.40	0.71	2524	28.9	324
91	506	26.662	-80.416	4/12/2004	13:30	hydr	0.32	0.03	1262	28.1	368
92	605 a	26.665	-80.416	4/12/2004	13:55	hydr	0.21	0.02	2698	28.0	334
92	605 b	26.665	-80.416	4/12/2004	13:55	cerato	1.18	0.09	3022	29.7	320
93	521	26.668	-80.416	4/12/2004	17:30	hydr	7.20	0.53	2678	30.8	367

Appendix 5.3 (Continued). Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight		Total P	Total N	Total C
							kg m ⁻²	kg m ⁻²			
94	507	26.672	-80.416	4/13/2004	10:30	none	0.00	0.00	NA	NA	NA
94	616	26.675	-80.416	4/13/2004	13:45	hydr	0.03	0.00	1511	19.1	248
95	536	26.660	-80.414	4/12/2004	12:25	none	0.00	0.00	NA	NA	NA
96	504	26.663	-80.414	4/12/2004	13:45	hydr	7.20	0.49	1685	25.6	325
98	606	26.667	-80.414	4/12/2004	14:25	hydr	3.72	0.28	2282	23.6	270
99	520	26.670	-80.414	4/12/2004	17:15	hydr	9.20	0.69	2372	28.5	332
100	615	26.674	-80.414	4/13/2004	10:00	hydr	0.01	0.00	2519	26.1	305
101	503	26.662	-80.412	4/12/2004	12:10	hydr	4.96	0.36	2141	24.4	267
102	508	26.665	-80.412	4/12/2004	14:00	none	0.00	0.00	NA	NA	NA
103	607 a	26.668	-80.412	4/12/2004	15:15	hydr	0.94	0.08	2998	27.5	286
103	607 b	26.668	-80.412	4/12/2004	15:15	cerato	0.23	0.02	2942	31.0	306
103	608 a	26.668	-80.412	4/12/2004	15:30	hydr	0.64	0.05	2695	29.4	320
103	608 b	26.668	-80.412	4/12/2004	15:30	cerato	0.32	0.03	2995	31.6	299
103	609 a	26.668	-80.412	4/12/2004	15:45	hydr	0.86	0.07	2968	29.9	322
103	609 b	26.668	-80.412	4/12/2004	15:45	hydr	0.30	0.02	2846	30.2	316
104	519	26.672	-80.412	4/12/2004	16:40	hydr	3.52	0.32	2245	25.9	296
105	614	26.675	-80.412	4/12/2004	17:55	hydr	1.36	0.22	1283	24.2	335
106	502	26.663	-80.410	4/12/2004	11:40	hydr	11.44	0.71	2447	27.1	312
107	509	26.667	-80.410	4/12/2004	14:15	hydr	3.12	0.15	3081	28.1	308
108	610	26.670	-80.410	4/12/2004	16:35	hydr	2.66	0.20	1989	24.9	283
109	516 a	26.674	-80.410	4/12/2004	16:00	hydr	0.62	0.04	2535	20.1	272
109	516 b	26.674	-80.410	4/12/2004	16:00	cerato	0.10	0.00	2582	31.4	344
110	601 a	26.665	-80.408	4/12/2004	11:45	hydr	1.77	0.18	2047	22.9	280
110	601 b	26.665	-80.408	4/12/2004	11:45	cerato	4.63	0.39	2488	25.0	254
111	510	26.668	-80.408	4/12/2004	14:30	hydr	20.40	1.14	3041	27.3	286

Appendix 5.3 (Continued). Vegetation parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Species	Wet weight kg m ⁻²	Dry weight kg m ⁻²	Total P mg kg ⁻¹	Total N mg kg ⁻¹	Total C mg kg ⁻¹
112	611 a	26.672	-80.408	4/12/2004	16:45	hydr	0.66	0.07	1786	26.3	342
112	611 b	26.672	-80.408	4/12/2004	16:45	cerato	0.24	0.02	2642	27.7	294
113	515	26.675	-80.408	4/12/2004	15:45	hydr	7.68	0.60	1313	38.2	441
114	500	26.667	-80.406	4/12/2004	10:40	cerato	0.72	0.07	2373	27.8	338
114	501	26.667	-80.406	4/12/2004	11:20	hydr	0.96	0.12	1861	27.8	364
114	600 a	26.667	-80.406	4/12/2004	10:45	hydr	2.49	0.21	2128	28.5	344
114	600 b	26.667	-80.406	4/12/2004	10:45	cerato	1.43	0.11	2174	28.2	332
115	518	26.670	-80.406	4/12/2004	16:27	none	0.00	0.00	NA	NA	NA
116	612	26.674	-80.406	4/12/2004	17:15	cerato	2.40	0.17	2861	30.5	313
117	517	26.672	-80.404	4/12/2004	16:15	hydr	0.72	0.05	1733	25.7	347
118	613 a	26.675	-80.404	4/12/2004	17:30	hydr	0.17	0.01	2720	30.6	328
118	613 b	26.675	-80.404	4/12/2004	17:30	cerato	0.12	0.01	2102	29.5	354
119	511	26.674	-80.402	4/12/2004	15:00	hydr	8.00	0.40	2898	22.6	282
120	512	26.675	-80.401	4/12/2004	15:15	hydr	0.88	0.06	2058	24.4	308
120	513	26.675	-80.401	4/12/2004	15:20	hydr	14.80	0.96	2137	24.5	288
120	514	26.675	-80.401	4/12/2004	15:25	hydr	0.40	0.03	1974	24.5	321

NDA = No data available

NA = No applicable

Appendix 5.4. Floc parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Ash Content %	LOI %	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
1	664	26.651	-80.443	4/16/2004	13:17	24.22	75.78	796	23.5	400
2	639	26.655	-80.443	4/13/2004	16:00	34.98	65.02	1181	21.9	346
3	656	26.658	-80.443	4/16/2004	11:27	19.37	80.63	806	27.9	456
4	651	26.662	-80.443	4/16/2004	10:37	8.97	91.03	814	23.8	429
5	567	26.665	-80.443	4/15/2004	12:42	20.72	79.28	465	25.5	426
5	568	26.665	-80.443	4/15/2004	12:55	25.78	74.22	542	23.9	398
5	569	26.665	-80.443	4/15/2004	13:05	22.22	77.78	515	24.9	417
6	566	26.669	-80.443	4/15/2004	12:20	22.27	77.73	611	25.3	415
7	549	26.672	-80.443	4/14/2003	12:15	32.13	67.87	733	22.8	363
8	550	26.675	-80.443	4/14/2003	12:37	35.29	64.71	632	21.8	352
9	661	26.653	-80.441	4/16/2004	12:31	30.63	69.37	818	24.4	374
9	662	26.653	-80.441	4/16/2004	12:40	36.20	63.80	915	22.2	346
9	663	26.653	-80.441	4/16/2004	12:50	31.70	68.30	857	22.7	361
10	636	26.657	-80.441	4/13/2004	15:30	45.95	54.05	1379	19.2	270
10	637	26.657	-80.441	4/13/2004	15:40	45.09	54.91	1248	19.5	285
10	638	26.657	-80.441	4/13/2004	15:50	NDA	NDA	NDA	NDA	NDA
11	655	26.660	-80.441	4/16/2004	11:14	24.44	75.56	1004	25.7	426
12	650	26.663	-80.441	4/16/2004	10:23	27.73	72.27	925	23.8	397
13	545	26.667	-80.441	4/14/2003	10:40	30.18	69.82	821	22.2	361
14	565	26.670	-80.441	4/15/2004	12:05	24.66	75.34	704	22.0	346
15	554	26.674	-80.441	4/14/2003	10:15	28.96	71.04	597	25.0	379
16	665	26.651	-80.439	4/16/2004	13:13	29.15	70.85	1012	25.1	395
17	660	26.655	-80.439	4/16/2004	12:18	16.59	83.41	631	25.1	461
18	635	26.658	-80.439	4/13/2004	15:20	51.36	48.64	1414	18.0	273
19	652	26.662	-80.439	4/16/2004	10:49	20.98	79.02	899	27.0	436
19	653	26.662	-80.439	4/16/2004	10:56	19.20	80.80	776	27.1	453
19	654	26.662	-80.439	4/16/2004	11:05	21.27	78.73	912	27.6	442

Appendix 5.4 (Continued). Floc parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Ash Content %	LOI %	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
20	570	26.665	-80.439	4/15/2004	13:55	29.41	70.59	756	22.2	383
21	546	26.669	-80.439	4/14/2003	11:02	25.23	74.77	691	25.3	397
22	555	26.672	-80.439	4/14/2003	10:43	35.91	64.09	646	22.6	354
23	551	26.675	-80.439	4/14/2003	12:53	35.91	64.09	634	20.7	349
24	668	26.653	-80.437	4/16/2004	14:12	24.66	75.34	903	24.1	408
25	659	26.657	-80.437	4/16/2004	12:05	54.26	45.74	747	13.8	259
26	634	26.660	-80.437	4/13/2004	15:05	46.88	53.12	1239	18.4	301
27	571	26.663	-80.437	4/15/2004	14:15	23.01	76.99	830	24.3	392
28	547	26.667	-80.437	4/14/2003	11:26	36.07	63.93	1029	20.4	334
29	562	26.670	-80.437	4/15/2004	10:55	23.08	76.92	766	25.0	415
30	544	26.674	-80.437	4/14/2003	10:13	24.43	75.57	646	25.3	397
31	666	26.651	-80.435	4/16/2004	13:42	33.33	66.67	1361	23.9	357
32	669	26.655	-80.435	4/16/2004	14:23	28.70	71.30	1096	25.6	392
33	658	26.658	-80.435	4/16/2004	11:56	26.13	73.87	868	24.9	415
34	633	26.662	-80.435	4/13/2004	14:50	37.22	62.78	1295	24.0	337
35	543	26.665	-80.435	4/13/2004	17:30	35.29	64.71	1044	21.9	340
36	564	26.669	-80.435	4/15/2004	11:35	23.42	76.58	679	24.9	410
37	647	26.672	-80.435	4/16/2004	9:55	37.10	62.90	855	22.8	360
37	648	26.672	-80.435	4/16/2004	10:05	24.55	75.45	616	25.9	430
37	649	26.672	-80.435	4/16/2004	10:15	41.78	58.22	852	21.2	351
38	552	26.675	-80.435	4/14/2003	13:18	33.78	66.22	921	21.4	347
39	667	26.653	-80.433	4/16/2004	14:01	25.23	74.77	940	26.4	413
40	670	26.657	-80.433	4/16/2004	14:40	60.91	39.09	875	15.6	226
41	657	26.660	-80.433	4/16/2004	11:45	40.99	59.01	1204	22.3	338
42	632	26.663	-80.433	4/13/2004	14:30	55.61	44.39	1126	16.0	261
43	542	26.667	-80.433	4/13/2004	17:15	30.36	69.64	910	23.9	378
44	563	26.660	-80.433	4/15/2004	11:10	23.32	76.68	522	25.3	415

Appendix 5.4 (Continued). Floc parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Ash Content %	LOI %	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
45	553	26.670	-80.433	4/14/2003	9:50	41.82	58.18	890	19.9	325
46	640	26.651	-80.431	4/13/2004	16:09	22.32	77.68	784	24.1	423
47	641	26.655	-80.431	4/13/2004	16:27	19.82	80.18	784	27.9	441
48	642	26.658	-80.431	4/13/2004	16:41	20.72	79.28	753	21.1	359
49	643	26.662	-80.431	4/13/2004	17:00	24.55	75.45	993	27.0	407
49	644	26.662	-80.431	4/13/2004	17:10	32.59	67.41	899	22.4	379
49	645	26.662	-80.431	4/13/2004	17:20	32.27	67.73	806	23.1	381
50	631	26.665	-80.431	4/13/2004	14:15	26.03	73.97	791	23.6	394
51	541	26.669	-80.431	4/13/2004	16:50	25.11	74.89	809	25.7	385
52	561	26.672	-80.431	4/14/2003	15:48	52.04	47.96	1109	17.9	282
53	556	26.675	-80.431	4/14/2003	13:51	39.46	60.54	955	19.6	328
53	557	26.653	-80.429	4/14/2003	13:56	36.82	63.18	868	21.0	335
53	558	26.657	-80.429	4/14/2003	14:00	33.03	66.97	849	20.6	371
54	575	26.660	-80.429	4/15/2004	15:55	31.08	68.92	894	24.2	359
55	574	26.663	-80.429	4/15/2004	15:35	66.52	33.48	947	12.4	204
56	573	26.663	-80.429	4/15/2004	15:20	16.52	83.48	969	27.4	440
57	572	26.663	-80.429	4/15/2004	15:03	38.91	61.09	1024	19.8	326
58	630	26.667	-80.429	4/13/2004	13:20	33.33	66.67	920	22.8	360
59	540	26.670	-80.429	4/13/2004	16:45	30.36	69.64	1109	24.5	350
60	560	26.674	-80.429	4/14/2003	14:47	34.08	65.92	966	22.8	347
61	622	26.662	-80.427	4/13/2004	16:55	21.27	78.73	880	26.6	419
61	623	26.662	-80.427	4/13/2004	16:55	40.89	59.11	1217	20.5	326
61	624	26.662	-80.427	4/13/2004	13:55	39.37	60.63	1146	21.0	334
62	528	26.665	-80.427	4/13/2004	11:15	23.64	76.36	623	23.9	397
63	629	26.668	-80.427	4/13/2004	12:30	37.10	62.90	1128	20.6	327
64	539	26.672	-80.427	4/13/2004	16:15	83.41	16.59	727	6.8	141

Appendix 5.4 (Continued). Floc parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Ash Content %	LOI %	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
65	559	26.675	-80.427	4/14/2003	14:18	53.33	46.67	688	15.0	274
66	527	26.660	-80.425	4/13/2004	10:48	24.55	75.45	1188	25.0	383
67	621	26.663	-80.425	4/13/2004	16:25	37.27	62.73	1078	20.7	337
68	529	26.667	-80.425	4/13/2004	11:32	38.29	61.71	897	19.1	332
69	628	26.670	-80.425	4/13/2004	11:45	28.70	71.30	888	23.0	369
70	538	26.674	-80.425	4/13/2004	15:54	24.89	75.11	784	25.4	388
71	526	26.662	-80.424	4/13/2004	10:35	31.82	68.18	1117	21.8	342
72	620	26.665	-80.424	4/13/2004	16:15	23.87	76.13	708	25.2	409
73	530	26.668	-80.424	4/13/2004	12:19	29.86	70.14	635	21.9	368
74	627	26.672	-80.424	4/13/2004	11:55	22.07	77.93	854	26.1	410
75	537	26.675	-80.424	4/13/2004	15:36	25.45	74.55	771	25.9	386
76	602	26.660	-80.422	4/12/2004	12:35	23.18	76.82	782	24.5	386
77	525	26.663	-80.422	4/13/2004	10:15	37.10	62.90	987	20.7	321
78	619	26.667	-80.422	4/13/2004	15:15	21.27	78.73	625	27.4	418
79	531	26.670	-80.422	4/13/2004	12:40	28.96	71.04	774	23.8	366
80	626	26.674	-80.422	4/13/2004	10:50	NDA	NDA	NDA	NDA	NDA
81	603	26.662	-80.420	4/12/2004	13:00	21.82	78.18	829	23.5	397
82	524	26.665	-80.420	4/13/2004	10:00	35.78	64.22	1153	20.7	320
83	618	26.668	-80.420	4/13/2004	11:35	38.12	61.88	1048	22.2	310
84	532	26.672	-80.420	4/13/2004	12:45	30.80	69.20	770	21.3	349
85	625	26.675	-80.420	4/13/2004	10:15	45.05	54.95	709	16.4	294
86	505	26.660	-80.418	4/12/2004	12:50	36.04	63.96	918	20.7	346
87	604	26.663	-80.418	4/12/2004	13:15	24.34	75.66	950	23.4	374
88	523	26.667	-80.418	4/13/2004	9:30	34.67	65.33	941	20.6	326
89	617	26.670	-80.418	4/13/2004	11:00	43.89	56.11	956	17.9	307

Appendix 5.4 (Continued). Floc parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Ash Content %	LOI %	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
90	533	26.674	-80.418	4/13/2004	13:10	30.18	69.82	762	23.4	364
90	534	26.674	-80.418	4/13/2004	13:15	31.70	68.30	797	22.9	364
90	535	26.674	-80.418	4/13/2004	13:38	25.79	74.21	695	25.4	391
91	506	26.662	-80.416	4/12/2004	13:30	30.18	69.82	946	22.6	371
92	605	26.665	-80.416	4/12/2004	13:55	26.70	73.30	789	23.9	369
93	521	26.668	-80.416	4/12/2004	17:30	37.50	62.50	968	19.5	319
94	616	26.672	-80.416	4/13/2004	10:30	39.37	60.63	790	21.1	331
95	536	26.675	-80.416	4/13/2004	13:45	34.53	65.47	747	22.0	358
96	504	26.660	-80.414	4/12/2004	12:25	26.34	73.66	770	25.6	395
97	507	26.663	-80.414	4/12/2004	13:45	38.64	61.36	1240	20.5	313
98	606	26.667	-80.414	4/12/2004	14:25	26.58	73.42	648	25.7	378
99	520	26.670	-80.414	4/12/2004	17:15	32.42	67.58	814	22.1	354
100	615	26.674	-80.414	4/13/2004	10:00	35.43	64.57	1122	22.3	333
101	503	26.662	-80.412	4/12/2004	12:10	23.98	76.02	794	24.4	388
102	508	26.665	-80.412	4/12/2004	14:00	NDA	NDA	NDA	NDA	NDA
103	607	26.668	-80.412	4/12/2004	15:15	42.79	57.21	1187	19.5	301
103	608	26.668	-80.412	4/12/2004	15:30	38.29	61.71	1432	21.4	314
103	609	26.668	-80.412	4/12/2004	15:45	NDA	NDA	NDA	NDA	NDA
104	519	26.672	-80.412	4/12/2004	16:40	29.09	70.91	751	23.9	349
105	614	26.675	-80.412	4/12/2004	17:55	19.00	81.00	609	25.8	407
106	502	26.663	-80.410	4/12/2004	11:40	25.91	74.09	807	25.3	387
107	509	26.667	-80.410	4/12/2004	14:15	20.36	79.64	533	27.1	409
108	610	26.670	-80.410	4/12/2004	16:35	25.34	74.66	852	25.6	378
109	516	26.674	-80.410	4/12/2004	16:00	26.70	73.30	756	25.0	375
110	601	26.665	-80.408	4/12/2004	11:45	30.45	69.55	872	22.9	356
111	510	26.668	-80.408	4/12/2004	14:30	24.44	75.56	885	24.8	373

Appendix 5.4 (Continued). Floc parameters for the sampling in May'04 in STA-1W Cell 5B.

Station	Lab ID	Latitude	Longitude	Date	Time	Ash Content %	LOI %	Total P mg kg ⁻¹	Total N g kg ⁻¹	Total C g kg ⁻¹
112	611	26.672	-80.408	4/12/2004	16:45	31.22	68.78	914	22.9	342
113	515	26.675	-80.408	4/12/2004	15:45	19.64	80.36	541	26.9	405
114	500	26.667	-80.406	4/12/2004	10:40	25.11	74.89	819	25.7	382
114	501	26.667	-80.406	4/12/2004	11:20	30.41	69.59	1113	24.5	356
114	600	26.667	-80.406	4/12/2004	10:45	31.08	68.92	1041	22.8	343
115	518	26.670	-80.406	4/12/2004	16:27	15.98	84.02	520	26.9	419
116	612	26.674	-80.406	4/12/2004	17:15	NDA	NDA	NDA	NDA	NDA
117	517	26.672	-80.404	4/12/2004	16:15	21.08	78.92	829	22.7	384
118	613	26.675	-80.404	4/12/2004	17:30	21.97	78.03	733	24.9	397
119	511	26.674	-80.402	4/12/2004	15:00	31.11	68.89	784	21.3	354
120	512	26.675	-80.401	4/12/2004	15:15	33.33	66.67	1084	20.1	332
120	513	26.675	-80.401	4/12/2004	15:20	35.75	64.25	1190	19.4	317
120	514	26.675	-80.401	4/12/2004	15:25	34.39	65.61	1169	20.8	330
Method								Carlo Erba	Carlo Erba	
								NA 1500	NA 1500	
								NA 1500 Ins.	Ins. Manual	Ins. Manual
								Manual and	and	and
								Methods of	Methods of	Methods of
								Soil Anaylsis	Soil	Soil
								Part 2, 2ed,	Anaylsis	Anaylsis
								section 31	Part 2, 2ed,	Part 2, 2ed,
									section 31	section 31
Detection Level								0.015	0.003	0.002

BD = Below detection limit

NDA = No data available

Floc = flocculant organic material